



Pharmacy Residency Manual

BRIGHAM AND WOMEN'S HOSPITAL

Department of Pharmacy Services | 75 Francis Street Boston, MA | Last Updated: 10/11/24

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Overview of Residency Programs

Program Philosophy and Purpose

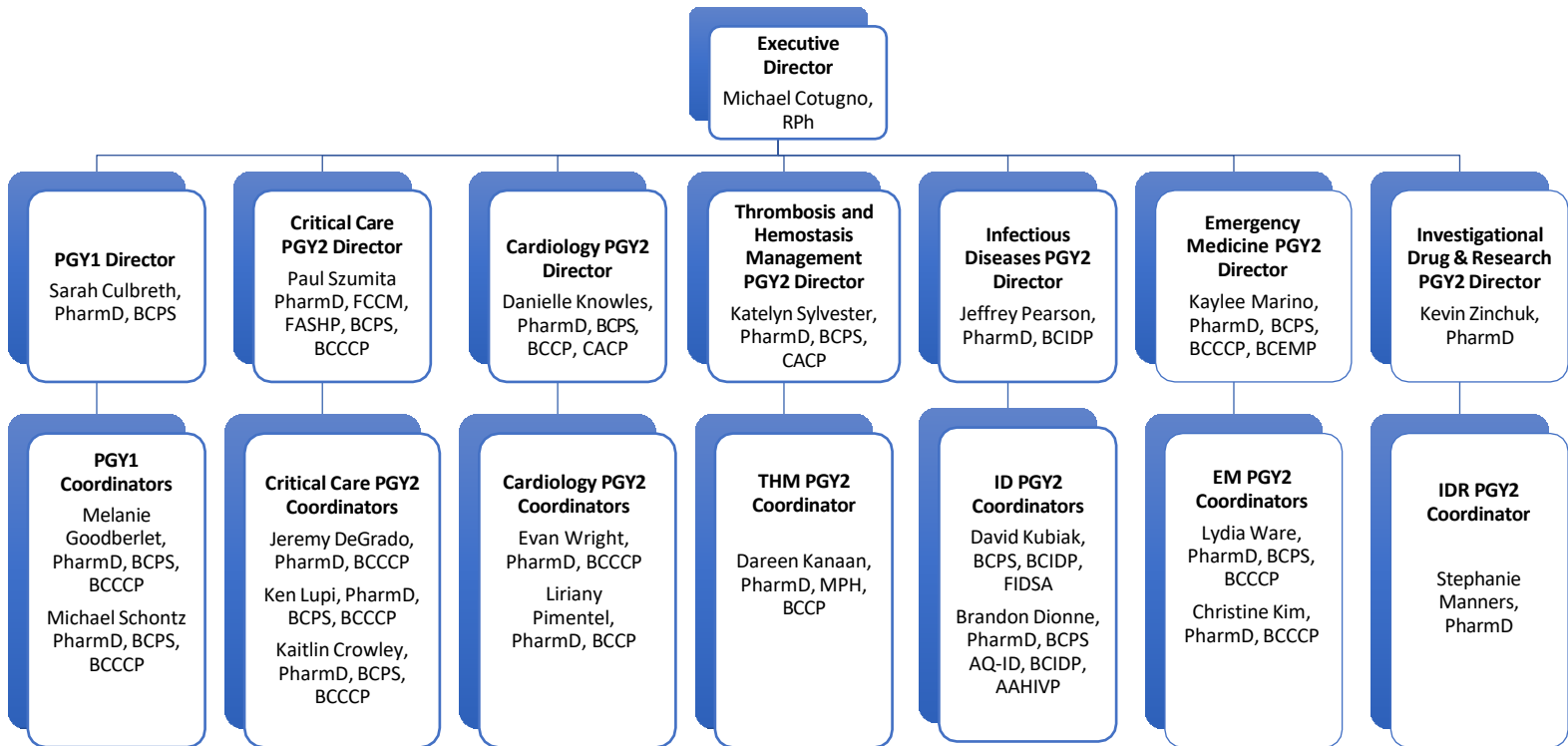
Brigham and Women's Hospital's residency training program provides organized and directed pharmacy training in tertiary academic medical center. The program centers on creating a caring and compassionate environment that promotes respect and dignity for every person. The program develops the knowledge and skills of the resident in various areas including medication therapy management, leadership, communication, practice management, critical thinking, time management, clinical research, and teaching. The program offers the resident the opportunity and stimulus to develop, to the highest degree obtainable, his/her professional expertise as a practitioner.

Efforts to provide optimal training and guidance for the resident will be extended whenever possible to the mutual satisfaction of the resident and the preceptor teams. A demonstrable desire to learn, a sincere career interest in pharmacy practice, and a dedication to fully meeting all objectives and recandidate requirements of the residency program are expected of the resident.

The PGY1 pharmacy residency program builds on pharmacy education and outcomes to contribute to the development of clinical pharmacists responsible for medication-related care of patients with a wide range of conditions, eligible for board certification, and eligible for postgraduate year two (PGY2) pharmacy residency training.

The PGY2 pharmacy residency programs build on pharmacy education and PGY1 pharmacy residency programs to contribute to the development of clinical pharmacists in advanced or specialized practice. PGY2 residencies provide residents with opportunities to function independently as practitioners by conceptualizing and integrating accumulated experience and knowledge and incorporating both into the provision of patient care that improves medication therapy. Residents who successfully complete an accredited PGY2 pharmacy residency should possess competencies that qualify them for clinical pharmacist and/or faculty positions and position them to be eligible for attainment of board certification in the specialized practice area (when board certification for the practice area exists).

Program Leadership



The term *Residency Program Director* (RPD) designates the department member responsible for the overall execution of the Residency Program and coordinating the activities of the residency program towards the goal of optimizing the program's effectiveness and impact. The RPDs are responsible for coordinating the central documentation of all residency activities and evaluation files sufficient for operation of the program and for accreditation review, as well as review the resident's major project activities. RPDs will assist with acquisition of adequate space and resources for the residency program.

The term *Residency Program Coordinator* designates the department members responsible for assisting the residency program directors in the execution of the residency program goals and objectives and resident progress tracking. The Residency Program Coordinators will work together to complete schedules, review evaluations, and review the resident's major project activities along with the director, manager, and Residency Oversight Committee (ROC).

Each learning experience may have multiple preceptors that work as a team to provide patient care activities. The term *primary preceptor* designates the department team member who provides primary preceptorship to the resident on any given learning experience. The primary preceptor is responsible for the development and maintenance of goals, objectives, and activities for his/her assigned areas of responsibility. He/She/They will review the resident's learning activities at the beginning of the resident's experience to designate the resident's specific interests and needs. The primary preceptor is responsible for enforcing deadlines for project activities in accordance with the Residency Program calendar.

Resident Employment

For employment, the resident must have graduated from an ACPE-accredited school of pharmacy and be eligible for licensure in the state of Massachusetts. The standard staff and employee background check will be performed by Brigham and Women's Hospital Human Resources. In addition, international residents must have a valid work VISA to complete the full residency year. An occupational health appointment is required prior to the start date, which requires immunization records and placement of a PPD test. All residents are required to attend Human Resources orientation or an Office of Sponsored Staff orientation prior to the scheduled start date. The purpose of this meeting is to complete all new hire associated paperwork and receive benefit information. Proper identification is required at each of these sessions and will be requested as directed.

Pharmacy Licensure

As a minimum requirement for employment, the resident must obtain licensure as a pharmacist with the state of Massachusetts within the first 120 days of residency. If any resident has not obtained pharmacist licensure in Massachusetts prior to the start date, he/she/they must be a licensed intern/technician trainee in the state of Massachusetts. All residents are strongly encouraged to pursue pharmacist licensure in Massachusetts prior to beginning the residency training program. Pharmacy residents may start their residency prior to receiving a pharmacist license; however, they will not practice pharmacist duties until they have an active pharmacist license in Massachusetts.

If any resident fails to obtain licensure within the first 120 days of residency, then the resident will be dismissed from the residency program and will not earn a certificate of completion, barring any extenuating circumstances as determined by the RPD. Please refer to the leave of absence and dismissal policy for further details.

In the case of an extenuating circumstance where the resident is approved to continue the residency after obtaining licensure 120 days from the start of the residency, the program leadership will work with the resident to adjust the residency schedule to ensure all goals and objectives are met within the standard residency program year. If the resident is not licensed until after 120 days, they will be required to extend the training program to ensure completion of at least two-thirds of their residency as a licensed pharmacist and complete the minimum 52-week program.

Program Structure

For information on specific program structure and learning experiences, please refer to the appendices below.

The BWH residency programs are all a minimum of 52-week programs that provide diverse rotations in many areas of specialization to offer experience in the provision of adult patient-centered care. The scheduling of resident rotations includes a combination of required and elective rotations to ensure that the resident is exposed to a variety of patient populations, medications, disease states, range of complexity, and interdisciplinary team members. For PGY1 residents, no more than three months of the program can be with a specific patient population or practice area. Residents will be allowed time in the various areas as the schedule permits.

All PGY1 and PGY2 residents will complete a required program-specific orientation learning experience outlining expectations, program structure and responsibilities. External residents will complete additional departmental training. This introductory training experience will prepare the resident to perform the job functions as required as a pharmacist in the department. This will also serve to provide administrative insights into the provision of pharmacy services within the hospital and to contribute to perspectives for subsequent participation in clinical and/or administrative project activities.

Teaching Experiences

Teaching is a strong component for personal development as well as contributing to pharmacy practice. The following experience are opportunities to developing teaching skills, enhance communication skills, and gain experience in mentorship.

- Precepting PharmD students on clinical rotations (required)
 - Direct preceptorship in conjunction with rotation preceptor
 - Feedback and participation in student presentations
- Pharmacy teaching seminar with Boston-area residents
 - Required for PGY1 residents
 - Optional for PGY2 residents
- Clinical instructor or guest lecturer (elective)
 - Didactic teaching in conjunction with faculty (local pharmacy school, medical school, university)
 - Experiences may be set up as schedule permits and must be approved by the RPD and program coordinators

Committee Work

All residents will be assigned a committee. The purpose of committee membership and active participation is to assist in fostering interdisciplinary and interdepartmental working relationships, teach organization and management skills, and introduce the resident to the working structure of the hospital.

Staffing Responsibilities and Duty Hours

DUTY HOURS AND MOONLIGHTING POLICY

DEFINITIONS

- **Duty Hours:** Duty hours are defined as all scheduled clinical and academic activities that are required to meet the educational goals and objectives of the pharmacy residency program. This includes inpatient and outpatient patient care (resident providing care within a facility, a patient's home, or from the resident's home when activities are assigned to be completed virtually); staffing/service commitment; in-house call; administrative duties; work from home activities (i.e., taking calls from home and utilizing the electronic health record as needed); 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 must be addressed by a well-documented, structured process.
 - Duty hours do not include reading, studying, or academic preparation time for presentations and journal clubs; travel time to and from work or 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 work day, or a combination of both.
- **Moonlighting:** 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.

Residents, program directors, and preceptors have the professional responsibility to ensure they are fit to provide services that promote patient safety. The residency program director (RPD) must ensure that there is not excessive reliance on residents to fulfill service obligations that do not contribute to the educational value of the residency program or that may compromise their fitness for duty and endanger patient safety. Providing residents with a sound training program must be planned, scheduled and balanced with concerns for patients' safety and residents' well-being. Therefore, programs must comply with the following duty-hour requirements:

Personal and Professional Responsibility for Patient Safety

- Residency program directors must educate residents and preceptors about their professional responsibilities to be appropriately rested and fit for duty to provide services required by patients.
- Residency program directors must educate residents and preceptors to recognize signs of fatigue and sleep deprivation and adopt processes to manage negative effects of fatigue and sleep deprivation to ensure safe patient care and successful learning.
- Residents and preceptors must accept personal and professional responsibility for patient care that supersedes self-interest. At times, it may be in the best interest of patients to transition care to another qualified, rested provider.
- The residency program director must ensure that residents participate in structured handoff processes when they complete their duty hours to facilitate information exchange to maintain continuity-of-care and patient safety.

Maximum Hours of Work per Week, Moonlighting , 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.
- Moonlighting must not interfere with the ability of the resident to achieve the educational goals and objectives of the residency program.
 - The BWH Department of Pharmacy believes that a residency year is a very full one, and that working outside of the residency duty hours may take away from the resident's total experience. Limited opportunities for moonlighting may be accommodated for residents who are making satisfactory progress towards their residency goals.
 - Internal or external moonlighting (see above definitions) is permitted with approval from residency program leadership.
 - All moonlighting hours must be pre-approved by residency program leadership and will be counted towards the 80-hour maximum weekly hour limit.
 - Moonlighting should generally be limited to 8 hours per week, averaged over a four-week period.
 - All residents will report any moonlighting hours (internal or external) in PharmAcademic in the monthly duty hour tracking activity.
 - If residents' participation in moonlighting affects their performance during scheduled duty hours, future moonlighting hours will not be approved until the resident is back in good standing.
- Mandatory duty-free times: 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 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.

Maximum Duty-Period Length

- 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.

TRACKING STRATEGY:

Resident duty hours will be filled out and assessed monthly via PharmAcademic. The resident will complete an initial attestation to confirm that they have read the duty-hour and moonlighting policy. They will receive monthly evaluations that will allow them to document and monitor their duty-hours. The program coordinator will cosign these evaluations to track duty-hour adherence.

Please refer to the [ASHP Duty-Hour Requirements for Pharmacy Residencies](#) document for further detail.

LONGITUDINAL WEEKEND STAFFING

In addition to the required staffing rotation(s) (see program-specific appendices for details), all pharmacy residents participate in weekend staffing on a rotating schedule for the duration of the program. This rotating schedule is sent out at the beginning of the residency year. The pharmacy department publishes the pharmacist schedule for a 6-week period. Resident weekend assignments will be determined with the release of each schedule. Residents are required to staff every third weekend [two full (2) weekends per schedule].

Due to differences in the Investigational Drug Services (IDS) staffing model and operational workflow, there is an exception to the above weekend staffing requirement for the Investigational Drugs and Research (IDR) PGY2 resident. The IDR resident will be required to staff one weekend per month in IDS. Additionally, the IDR resident will staff one weekday shift and one partial evening shift (4-8pm) per month in IDS.

A resident will have one “comp” day either the week before or the week after the weekend worked. All residents will be expected to place comp days into the pharmacy electronic scheduling program once decided upon with preceptors prior to the pharmacist schedule deadline for requests. Comp day selection should not routinely interfere with resident responsibilities, including but not limited to committee(s), presentation dates, longitudinal activities, etc. The resident and preceptor should discuss comp day selection to maximize rotation experiences as much as possible. The residency director may override comp day selection if significant interference with resident responsibilities.

Residents may trade weekends with other residents. Any switches with full-time staff cannot incur overtime with the trading parties. All scheduling must be submitted and approved in the pharmacy scheduling system before the departmental schedule deadline electronic scheduling software.

HOLIDAYS

Residents are required to staff a minimum of one major holiday (Thanksgiving, Christmas, New Year’s). Requests follow the standard department procedure. All non-major holidays (outlined by human resources) will be staffed based on departmental need.

SUPPLEMENTAL STAFFING

During times of departmental need, residents will be assigned staffing shifts (weekdays). Additional staffing will be assigned as directed by pharmacy leadership and appropriate compensation will occur (weekdays and or weekends). Such events can include, but are not limited to:

- Overnight Biennial (DEA) inventory activities
- Technology / longitudinal medical record upgrades
- Downtime procedures and external events

REMOTE WORK

Remote work is not a requirement of the residency program. Hospital resources are provided if remote work should become required. Remote work will follow all applicable hospital and departmental policies.

Attendance and Leave of Absence Policy

Attendance and Timeliness are expected of residents:

- Residents are expected to be physically present at the residency site during the times specified by the program. Any planned absences should be communicated to the program leadership as soon as possible, but no later than two weeks prior to the absence. Unplanned absences should only occur in the cases of illness or other urgent personal matters and should be communicated to Schedule Changes, program leadership, and rotation preceptor as soon as is reasonably possible.
- The resident is responsible for completion of program activities and competencies missed due to absences. Completion of these activities must be documented by the resident and the preceptor.
- All activities required for the completion of the residency must be completed at the end of the 52-week residency unless a pre-approved extension has been granted due to approved time away from residency (see below).
- The resident cannot miss more than 25% of a rotation, except for extenuating circumstances that are approved by the residency director or departmental leadership.

Total time away from the residency program:

- The total time away from the residency program cannot exceed 37 days total with restrictions on how the 37 days are allocated:
 - Vacation, sick, personal and hospital-observed holiday time (does not include comp days): 15 days
 - Religious, interview, jury duty, bereavement time, military or parental leave, leave of absence and extended leave: 22 days
- Time greater than the above limits will result in program extension or program dismissal based on the circumstances and will be discussed with the RPD and pharmacy leadership.
 - Program extension will be equivalent to time missed beyond 37 days and competencies missed but not to exceed 120 days
 - Additional information below regarding exceptions beyond 120 days related to HR-approved leave of absence
 - Salary and benefits will continue during program extension
 - If time missed beyond 37 days is not made up, no certificate will be issued
- Time off requests must be approved by the program leadership and rotation preceptor and follow the rules of pharmacy scheduling and time off procedures (Refer to [Pharmacy Attendance and Punctuality Policy](#) for detailed policy).
 - BT during the last week of residency is strongly discouraged and approval is subject to departmental needs.
- A leave of absence may be granted at the discretion of the program director and according to the [Human Resources Leave of Absence policy and procedure](#), which dictates the approved length of the leave.
 - A leave of absence will be granted only in cases where the resident intends to return to the residency program at the end of the HR-approved leave.
 - If the resident requires additional time off beyond the approved leave, the

resident will be dismissed from the program. The resident can re-apply in a future residency cycle and if offered a resident position, will need to complete a full 52-week program.

- Benefits will be continued during the time the resident is on approved leave as per the [Human Resources Leave of Absence policy and procedure](#)
- Continuation of salary will be based on the type of approved leave and the resident's selected benefits as per the [Human Resources Leave of Absence policy and procedure](#)

All other questions related to leave should be referred to the BWH leave of absence policies and procedures. Questions not answered by these policies should be triaged by the RPD, the resident's pharmacy manager, and Human Resources.

Disciplinary and Dismissal Policy

The Residency Director may place a resident on probation or dismiss a resident for inappropriate behavior(s) as defined herein.

DEFINITIONS

- **Probation:** The residency director suspends or limits the continuation of the residency program via probation. Probationary status indicates that completion of the residency training program is in jeopardy. Probation is a specified and defined period of time no more than three months. Probation may include the restriction of assigned work, loss of elective time or both.
- **Dismissal:** The Residency Director ends the resident's training at BWH via dismissal.
- **Withdrawal:** The resident initiates termination of his/her/their residency training program at BWH.

Placing A Resident on Probation

A resident may be placed on or removed from probation by a decision of the Residency Director in consultation with the residency oversight committee, residency advisory committee (RAC), or program coordinators. The Residency Director will inform the resident of the probation status, duration and limitations in person and in writing. Probation may occur as the result of any of the following:

- Failure to complete or satisfactorily progress during a required rotation or set of objectives
 - Failure to progress can be identified through quarterly evaluations, residency leadership, or preceptor evaluations. Consequences of failure to progress will be addressed by the RPD and may include but are not limited to remediation rotations, presentations, competencies, or termination from the program.
- Failure to adequately participate in the educational program as defined by:
 - Failure to establish individualized rotation goals/objectives with the preceptor
 - Failure to be present at the established/scheduled times
 - Failure to complete assignments according to established deadlines
- Failure to act responsibly and ethically in the provision of pharmaceutical care
 - Failure to practice in accordance with state and federal drug laws
 - Failure to practice in accordance with the Policies and Procedures of the Department of Pharmacy Services and BWH
- Failure to communicate or collaborate with colleagues and/or preceptors when such is required for optimal patient care
- Inappropriate or excessive absence from the hospital as defined in the BWH time and attendance policy
- Failure to respond to pages, verbal or written requests for drug information or other pharmacy services
- A non-HR approved leave of absence greater than 15 calendar days or failure to make up time

- Accidental or intentional plagiarism (copied text and/or ideas without proper citation)

Dismissal from the Residency Program

A resident may be dismissed from the program after the defined probation period if the reason for probation is not resolved within the time period agreed upon. Additionally, a resident may be dismissed from the program for one or more of the above listed reasons without first being placed on probation. The decision to dismiss a resident is made by the Residency Director in consultation with the program coordinators.

- The resident will be informed of dismissal in person and in writing.
- The resident shall be restricted from work immediately upon notification of dismissal.
- The residency director reserves the right to dismiss any resident whose program achievements, clinical performance, or conduct as a professional makes continuation in the program inadvisable.
- Residents who are dismissed shall not receive a certificate of completion.

Resident Withdrawal

A resident may voluntarily withdraw from the residency program.

- The resident will inform the Residency Director of the intent to withdraw in writing.
- The resident should provide at least two weeks' notice to the Residency Director prior to withdrawal to ensure continuity in the provision of pharmaceutical care.
- Residents who withdraw will not receive a certificate of completion.

Resident Recruitment

SCREENING PROCEDURES (INTERVIEW SELECTION)

Screening

Residency directors and coordinators review all submitted applications in PhorCAS. All applications that are incomplete or do not meet the residency minimum requirements will be removed from consideration.

BWH PGY1 residency minimum requirements are as follows:

- Anticipated to graduate from an ACPE-accredited school of pharmacy or have a Foreign Pharmacy Graduate Examination Committee (FPGEC) certificate from the NABP
- Ability to work in the United States and get licensed as a pharmacist in the state of Massachusetts

BWH PGY2 residency minimum requirements are as follows:

- Graduate from an ACPE-accredited school of pharmacy or have a Foreign Pharmacy Graduate Examination Committee (FPGEC) certificate from the NABP
- Graduate from an ASHP-accredited PGY1 residency program
- Ability to work in the United States and get licensed as a pharmacist in the state of Massachusetts

Applications are divided and are thoroughly reviewed by a pharmacist reviewer in parallel with a residency program director or coordinator. Letters of recommendation, letter of intent, supplemental questions (if applicable), curriculum vitae (CV), and transcripts are reviewed and ranked independently by directors and coordinators to evaluate the applicants' qualifications. Candidates are ranked based on an objective rubric in categories determined by pharmacy residency leadership. Rubric rankings and additional comments are then compiled in a combined Excel document.

Residency directors and coordinators review all candidates and create a final list of applicants to offer an interview. Depending on the number of applicants, residency directors and coordinators may utilize an additional screening process (virtual, telephone, or in-person) prior to finalizing a list of candidates for final interviews.

Residency program directors or coordinators send emails to applicants offered an interview with interview date and details. This email will also contain links to the BWH Residency website and Residency Manual. The applicant will be expected to review these documents prior to the interview.

Residency program directors or coordinators send an email to all applicants not offered an interview after finalizing the interview list.

Interviewing

All residency candidates are interviewed by departmental leadership, residency leadership, preceptors, and residents with the aid of a standard list of questions. Each

interviewer will assess candidates using the interview rubric provided by the residency coordinators.

Each interview group will submit an ordered interview rank list to the residency leadership who will assemble a preliminary ranking list for discussion. Interviewers participate in a final ranking meeting to discuss and adjudicate any significant differences in rank order.

A final list is compiled and submitted via the National Matching Service by the rank deadline.

Phase II and Scramble

Phase II and scramble procedures will follow the applicant screening and interviewing processes outlined above, in an expedited fashion.

Early Commitment

Current BWH PGY1 residents are eligible to apply for early commitment to an existing PGY2 program. A member of the Residency Oversight Committee (ROC) will send out an email to the PGY1s by the end of September with details regarding the application process and deadlines.

The current BWH PGY1 resident must submit a letter of interest and an updated CV to the PGY2 RPD and residency coordinators at least one (1) week prior to the October ROC meeting. It is the resident's responsibility to contact the PGY2 program leadership to obtain further information about the program. It is strongly encouraged to express interest as early as possible.

All candidates will be discussed at the October ROC meeting to identify if candidates are in good standing with the PGY1 program. "Good standing" is defined as meeting the minimum requirement for employment as outlined in the Residency Manual and the absence of active disciplinary action. If the resident is in good standing, the PGY2 program will begin the formal interview process outlined above, although the materials will be gathered via email as opposed to PhorCAS. The PGY2 program leadership will also review the resident's PharmAcademic evaluations for any major concerns.

If an offer is to be granted, the official offer letter will be delivered to the resident prior to December 1. If the resident accepts, the signed offer letter must be returned to the PGY2 RPD within 72 hours of receipt.

OUTREACH PROCESS TO INDIVIDUALS UNDERREPRESENTED IN THE PROFESSION OF PHARMACY

During recruitment season, pharmacy leadership will prioritize the development of easily accessible information sessions for each residency program. Annually in October, pharmacy leadership will review a list of underrepresented areas or entities (e.g., historically black colleges and universities, or programs committed to serving underserved geographical locations) and directly distribute the details of the recruitment sessions to optimize outreach.

Methods for recruitment that promote diversity and inclusion will be evaluated annually at the end of recruitment season. The assessment includes:

- Number of applicants and diversity of the applicant pool (based on available data from PhorCas), including geographic diversity and diversity in colleges and schools of pharmacy
- Student attendance at showcases or recruitment sessions for each residency program
- Evaluation of marketing materials for inclusivity, diversity, and accuracy
- Evaluation of screening tools and rubrics used in selection, interviewing, and ranking process to minimize bias and identify the best candidates

Improvements identified and plans for implementation are to be presented by the residency program leadership to the Residency Oversight Committee in advance of the following recruitment season

POST-RANK PROCESS

Residency director receives final match list from NMS / ASHP and distributes to coordinators.

Programs with unfilled positions in Phase I of the Match will offer those positions to unmatched applicants in Phase II of the Match using deadlines outlined by NMS/ASHP. The process for screening, interviewing and ranking will follow the above procedure for both PGY1 and PGY2 programs.

Residency program coordinators or directors reach out to candidates that matched to welcome them to BWH. This email will include the residency manual and a list of residency expectations/requirements for completion.

The resident must sign an attestation on the offer letter accepting the position and noting that they have read and understand the programs requirements and expectations. This letter will be returned via email and filed in their personal folder.

In May prior to the starting academic year, residency coordinators will send out a baseline assessment, resident annual record and request for learning experience preferences.

The residents will send back a completed baseline assessment and their preferences for learning experiences.

BWH human resources will follow-up with an official offer letter from BWH for employment

All incoming PGY2 residents will provide a signed copy of their ASHP-accredited PGY1 residency certificate within the first 30 days of their residency start date. If a copy of their signed certificate cannot be provided, a signed letter from their PGY1 residency program director stating the resident completed all PGY1 requirements and will be receiving their certificate is sufficient. If neither can be provided, their start date for PGY2 will be delayed until either can be provided and the resident may be subject to our disciplinary and dismissal policy.

Learning Experience Responsibilities

OVERVIEW

Each learning experience is designed by the preceptor to align with the daily activities of the staffing pharmacist as well as gain competence in assuming the role of the primary pharmacist of the given area.

Prior to the initiation of a rotation, the specific goals and objectives and related activities should be reviewed by both the resident and preceptor.

RESIDENT

Successful completion of a learning experience requires the resident to actively engage and participate in all aspects of patient care associated with the learning activity. This includes, but is not limited to:

- Sets up initial meeting with primary and/or secondary preceptors to define individual goals, objectives, activities, expectations, and develops a rotation calendar for the experience during the first week
- Meet regularly to develop and individualized plan to achieve goals
- Schedule time to discuss patients and topic discussions
- Assumes practice responsibilities of preceptor in his/her absence (as agreed upon by rotation preceptor and resident)
- Completes all evaluations in PharmAcademic within 5 days of completion of the learning experience and discusses evaluation with preceptor

PRECEPTOR

The residency preceptor is responsible for ensuring the resident is appropriately progressing throughout the rotation. This includes, but is not limited to:

- Review the individual goals, objectives, activities, expectations, and develops a rotation calendar for the experience during the first week and orientates resident to practice area
- Serves as a practice role model for the resident through active participation in the delivery of comprehensive pharmaceutical care services
- Adopts the appropriate precepting role [direct instruction, model, facilitate, coach] for the resident to meet their specific needs
- Meet regularly to develop and individualized plan to achieve goals
- Meet with the resident to discuss patients and topic discussions
- Approves comp day requests (see Duty-Hours below)
- Discusses resident performance with interdisciplinary team members (as appropriate) and other pharmacy staff to develop well-rounded feedback
- Continually seeks to promote and improve the quality of the residency experience
- Provides periodic feedback to the resident [both formative and summative] on his or her performance
- Challenges the resident based on their ability to meet expectations

- Completes all evaluations in PharmAcademic within 5 days of completion of the learning experience and discusses evaluation with resident

ROTATION TRANSITION

To facilitate communication and setting expectations from one learning to another, the resident/preceptor will ensure rotation evaluations are done within 5 days of completion of the learning experience. Any specific or targeted areas of improvement requiring remediation should be a focus and incorporated into the next learning experience. The resident in collaboration with the residency program coordinator(s) and RPD will ensure that this feedback is incorporated into the customized training plan. The next rotation preceptor should be included in this transition plan.

EVALUATION PROCEDURES

The resident and preceptor evaluations will be populated from the learning objectives as outlined by the ASHP RLS goals and objectives for the specific program. Informal, verbal feedback will be discussed periodically with the resident to discuss progress and ways of improvement. Formal evaluations of the resident, preceptor, and learning activity will be completed after each activity or quarterly for all longitudinal experiences. It is the responsibility of the resident to receive clarification of the goals and objectives throughout the learning experience as needed.

- Formal documentation of each of the following must be completed at a minimum:
- Baseline Resident Evaluation
- Resident summative evaluation of preceptor and rotation experience
- Resident summative self-evaluation of the learning experience as assigned
- Preceptor summative evaluation of the learning experience
- Quarterly evaluation and customized residency plan

Compliance with these performance evaluation policies is essential for the professional maturation of the resident and maintenance of the quality of the residency program. Failure to comply with the policy will be addressed by the RPD.

Program-specific definition for summative evaluation forms in PharmAcademic are as follows:

All progress will be monitored based upon meeting expectations of the rotation. Expectations will be outlined through the activities listed in each objective for the rotation. Progress will be tracked based on the percentage of time that the resident meets these activities throughout the rotation.

- **NI = Needs Improvement:** The resident is meeting the pre-specified activities of the rotation less than 60 % of the time per preceptor's discretion. The time that the resident has been in the program should be taken into consideration. **A stated improvement plan is required to be included in the Resident Development Plan.**
- **SP = Satisfactory Progress:** The resident is meeting the pre-specified activities of the rotation between 60-80 % of the time per preceptor's discretion. Expectations often change based on their progress in the residency.

- **ACH** = Achieved: The resident is meeting the pre-specified activities of the rotation at least 80% of the time per preceptor's discretion. This is in line with what would be expected of any residency-trained pharmacist.
- **ACHR** = Achieved for residency: The resident has achieved the objective at least twice (unless it is an objective that is only evaluated once) or as determined by the residency director/residency coordinator.
- **NA** = Not Applicable: the specific objective is unable to be evaluated on this rotation. Consider notifying the residency program coordinators to discuss removal of this objective from the rotation if appropriate.

*ALL residents must achieve for residency at least 80% of the objectives to receive a graduation certificate.

The RPD and program coordinators must track and document the resident's overall progress towards achieving the educational goals and objectives of the residency program. Progress will be assessed quarterly. The final quarterly evaluation should ensure that the resident has successfully completed all the residency program educational goals and objectives.

The expectation of all individuals completing Pharmacademic evaluations, is that all required forms will be completed in a timely manner to promote resident progression throughout the year. Specific expectations are as follows:

- All evaluations should be completed by the deadline given in Pharmacademic, and NO LATER than 5 days after the deadline
- Preceptors
 - When selecting "SP" or "NI" provide specific feedback and actionable items that the resident can focus on to achieve this objective in future learning experiences
 - If "NI" is selected the preceptor will work with the resident and program leadership to develop a formal improvement plan for achieving this objective during the program
 - Feedback should focus on what the resident can do to progress, rather than what the resident accomplished on rotation
 - Objectives that are "ACH" or "ACHR" do not require comment
 - Overall comments section can be used to provide any additional feedback for the resident
- Residents
 - All evaluations, including evaluation of the preceptor, the learning experience, and self- evaluation as applicable, must be completed by the deadline in Pharmacademic, and NO LATER than 5 days following that deadline

Research Responsibilities

FORMAL RESIDENCY PROJECT

The Residency Oversight Committee (ROC) is responsible for assuring that the program provides the resident with a high degree of research project involvement. Research projects are assigned or selected with the dual purpose of benefit to the department as well as learning/experiential value to the resident. Individual preceptors provide appropriate guidance, instruction, and feedback while the resident is participating in activities including but not limited to rotation responsibilities, projects, formal presentations, drug therapy discussions.

The primary emphasis of the residency program is to develop the resident's practitioner expertise. An integral part in the development of the resident is an appreciation of research methodology. Provisions will be made for the resident's participation in a clinical research or a practice-related project. The project undertaken, by agreement of the resident, project preceptor, and participating co-investigators, and ROC will be of suitable quality for publication in peer-reviewed journals, presentation at major scientific meetings and the Eastern States Pharmacy Resident Conference.

The Peer review committee (PRC) aids the resident throughout the research process to allow the resident to present their defined research idea in addition to provide an objective assessment to their research strategy. The committee provides insight into the development of the abstract in addition to the research poster to provide a different perspective for the resident and their research group.

Please refer to each program's appendices for the project timelines.

Conference Attendance

REIMBURSEMENT PROCESS

Conference fee and expenses will be reimbursed according to hospital, department or contract policies. For sponsored staff, such as international residents, conference fees and expenses follow sponsor policies regarding reimbursement.

Residency Oversight Committee

PURPOSE

The residency oversight committee reviews program fundamentals and provides guidance and feedback on the overall performance of the BWH Pharmacy Residency Program and current resident class. The committee will review and approve all residency project proposals, review individual progress reports of each resident, assess resident and preceptor evaluations and feedback and recommend corrective action as deemed necessary. The residency committee members include the Chief of Service, the RPDs, residency coordinators, and selected preceptors. The ROC's charge is to provide oversight for the residency program. Meetings are held monthly.

The ROC reviews on an annual basis:

- Accreditation standards and survey
- Orientation feedback
- Preceptor documents and reappointment eligibility
- Recruitment planning
- Preceptor development
- Policy and procedure review
- Interview optimization
- Early commitment process
- Manual revisions
- Project proposals and committee assignments
- Disciplinary action policy
- Mentor program
- ROC evaluation

Presentation Requirements

ADDITIONAL PROGRAM SPECIFIC PRESENTATION REQUIREMENTS CAN BE FOUND IN THE PROGRAM APPENDICES

ROTATION SPECIFIC PRESENTATIONS

Any presentations completed for a given rotation will be determined by the primary preceptor and/or preceptor group. This can vary based on APPE student preceptorship, clinical topics, or rotation set up. Rotation presentations may vary from one-on-one informal topic discussions to case presentations, journal clubs to team teaching activities. Any public presentations must be scheduled on SharePoint.

PHARMACIST HUDDLE

The weekday pharmacist huddle meeting is a platform for staff members to present on a multitude of clinical, operational, or informative topics. The presentation should be no longer than fifteen (15) minutes to ensure adequate time for shift pass-off and should include a presentation slide deck. Examples include topics from each rotation, research projects, or workflow changes. All slide decks required review from the primary preceptor prior to presenting. Post-presentation feedback is encouraged for each presentation. The presentation must be scheduled on SharePoint.

JOURNAL WATCH

Pharmacy Journal Watch occurs every Tuesday at the pharmacist huddle meeting. Each resident is assigned a journal by August and will present updates on the analysis of new primary literature on a rotating schedule.

ACPE-ACCREDITED CONTINUING EDUCATION PROGRAMS

All pharmacy residents will be required to complete a minimum of one (1) 60-minute continuing education (CE) program to the pharmacists at Brigham and Women's hospital. Subjects of this presentation should be of practical nature for pharmacists and should coincide with the ACPE/PDC needs assessment gap. This CE should be coordinated with the ACPE committee. PGY1 residents will present a CE in the fall and a case conference CE in the spring. The primary preceptor and topic must be determined at minimum 30 days prior to the presentation date. Per ACPE committee objectives, CV, title, and goals and objectives will need to be submitted 30 days prior to the CE date. Slides and evaluation questions are due two (2) weeks prior, with a final slide deck and practice presentation submitted one (1) week prior. presentation requirements.

PGY1 residents are required to present, at minimum, ten (10) and PGY2 residents are required to present, at minimum five (5) departmental or multi-disciplinary presentations. Residents must confirm qualifying presentations with program leadership. Required platform and CE presentations do not count towards this total.

PGY1

In addition to the above requirements, all PGY1s will present their platform presentations as a combined CE in June. This will be presented to the pharmacy staff, highlighting the achievements of their residency projects.

PGY2 Critical Care, Emergency Medicine, Infectious Diseases, Thrombosis and Hemostasis Management, and Investigational Drugs & Research

PGY2 residents will be required to complete and present one CE to the department.

PGY2 Cardiology – Heart Week

Cardiology PGY2 residents will be required to complete and present a CE during Heart Week. Heart week at Brigham and Women's Hospital is held in February/March (as scheduling permits) with the goal of providing education to the pharmacy staff on cardiovascular related topics through CEs, pharmacist huddle meetings, and other related platforms.

Additional CE opportunities may present at any given time and can be completed at the discretion of the RPD, residency coordinators, primary preceptors, or residents.

Shared Resident-Led Initiatives

ADDITIONAL PROGRAM SPECIFIC INITIATIVES CAN BE FOUND IN THE PROGRAM APPENDICES

AMINOGLYCOSIDE PROGRAM

The aminoglycoside program is a resident run monitoring program that works to ensure safe and effective therapy for any patient receiving an aminoglycoside. All specific program information is provided during training and orientation. PGY1 residents assigned the daily work-up of patients. PGY2 residents and the pharmacist attending provide input and oversight of more complicated patients. ALL residents assigned should have a working knowledge of each patient on therapy.

INPATIENT ORTHOPEDIC ANTICOAGULATION MANAGEMENT (AMMO) SERVICE

The AMMO service is a pharmacist-led initiative that monitors and orders warfarin every day of the week for post-orthopedic surgery patients who require warfarin therapy. The cardiology, thrombosis and hemostasis management, and critical care PGY-2 residents will rotate weekly and on weekends to cover along with other staff pharmacists.

DRUG UTILIZATION REPORTING

Various drug utilization reporting occurs as part of monitoring programs, shift follow-up, or pharmacy stewardship. Examples include, but are not limited to heparin documentation, insulin infusion protocol documentation, override evaluations, IV fluid reports, or IV opioid reports.

BI-WEEKLY RESIDENT MEETING

A residency meeting is scheduled bi-weekly with the resident class, RPDs, and coordinators to discuss issues, timelines, and any other pertinent topics. Residents are responsible for taking notes and sending out minutes.

RECRUITMENT

Residents are expected to participate in the recruitment of new residents through the creation and use of promotional materials and participation in showcases such as ASHP Midyear Clinical Meeting, New England Residency Showcase, and other residency showcases throughout the northeast as directed by residency leadership.

DRUG TAKE-BACK DAYS

Drug take back days for expired or unused medication in coordination with Outpatient Pharmacy Services will be held throughout the year. Residents are expected to work at the booth to provide assistance and guidance to patients and staff.

PEER TO PEER VACCINATION CAMPAIGN

During the annual influenza campaign, the residents coordinate the peer to peer vaccination program, document which employees who receive the vaccine, and provide documentation to Occupational Health.

BWH PGY1 Pharmacy Residency Program Appendix

PROGRAM GOALS

Program goals are set by the ASHP standard.

- Manage and improve the medication-use process
- Provide evidence-based, patient-centered medication therapy management with interdisciplinary teams
- Exercise leadership and practice management skills
- Demonstrate project management skills
- Provide medication and practice-related education/training
- Utilize medical informatics
- Develop independent learning skills

PGY1 PROGRAM STRUCTURE

Orientation / Training	6 weeks
Residency Rotational Learning Experiences	44 weeks
Conferences	2 weeks

Required PGY-1 Learning Experiences*	Choose Three Elective Learning Experiences	Longitudinal Experiences (year-long)
<ul style="list-style-type: none"> • Required rotations <ul style="list-style-type: none"> ○ Orientation ○ Ambulatory (<u>one</u> of the following): <ul style="list-style-type: none"> • Primary Care (South Huntington, Jen Center, or 800 Huntington) • Anticoagulation Management Service ○ Cardiology (<u>one</u> of the following) <ul style="list-style-type: none"> • General Cardiology • Heart Failure ○ Critical Care (<u>one</u> of the following) <ul style="list-style-type: none"> • Medical ICU • Neuroscience ICU • Surgical ICU ○ General Medicine ○ Infectious Diseases ○ Leadership and Safety ○ Advanced Integrated Clinical Pharmacy Practice (2 blocks) • Additional required <ul style="list-style-type: none"> ○ Formal presentations 	<ul style="list-style-type: none"> • Burn/Trauma ICU[†] • Cardiac Surgery ICU[†] • Coronary Care ICU[†] • Medical ICU[†] • Mixed Medical and Surgical ICU[†] • Neonatal ICU[†] • Neuroscience ICU[†] • Surgical ICU[†] • Thoracic ICU[†] • Emergency Medicine • Acute Pain • Chronic Pain Management • Ambulatory Care – Heart and Lung • Abdominal Organ Transplant • Lung Transplant • Hematopoietic Stem Cell Transplantation • Hematologic Malignancy • Investigational Drug Service • Inpatient psychiatry (McLean Hospital) 	<ul style="list-style-type: none"> • Research project (meetings as frequent as one hour weekly) • Service activities and staffing (every 3rd weekend)

Rotation length: 4 weeks unless otherwise determined by RPD/RAC

*Unless otherwise approved by RPD/RAC

[†]A maximum of 2 additional adult ICU rotations may be selected.

RESIDENCY PROJECT TIMELINE

ACTION ITEM	SUBMIT TO	COMPLETION DATE
Preceptor project proposals	ROC	May ROC Meeting
PRC Project proposal	PRC	1 st week of August
Detailed project timeline	Project preceptor team	4 th week of August
IRB submission	IRB	4 th week of August
Vizient/ASHP abstract due	PRC	1 st week of October
Vizient/ASHP abstract submission	Vizient	3 rd week of October
Vizient/ASHP poster due	PRC	1 st week of November
Order Vizient/ASHP poster	TBD	3 rd week of November
Vizient/ASHP poster presentation	Vizient/ASHP	1 st week of December
Abstract complete	Project preceptor team	4 th week of January
Data collection complete	Project preceptor team	March 1st
Abstract for ESRC	PRC	1 st week of March
Complete platform presentation	Project preceptor team	4 th week of March
Platform presentation submitted	ESRC website	1 st week of April
Platform presentation pharmacist huddle	Pharmacy staff	2 nd week of April
Platform presentation at ESRC	ESRC	1 st week of May
Manuscript draft complete	Project preceptor team	1 st week of June
Manuscript complete	Residency coordinators	2 nd week of June
End-of-the-Year research presentation	Pharmacy staff	3 rd week of June

ROC = resident oversight committee; PRC = peer review committee; IRB = investigational review board; ESRC = Eastern States Residency Conference

CASE CONFERENCES

The PGY1 resident case conference series is an opportunity for residents to provide staff education in a formal presentation, including questions and answers in a didactic lecture format. Cases are scheduled during the first half of the residency year and scheduled on SharePoint. Accommodations should be made to include an audience comprised of pharmacists as well as pharmacy students and other interdisciplinary team members as directed.

A case can be selected from any care area from a current or prior rotation. The resident must be involved in some aspect of the patient's care.

A preceptor must be selected in conjunction with the patient case. It is advised that the topic be selected more than four (4) weeks prior to the presentation. Preceptors should have at least two weeks to review and edit the presentation, and the final slides are due to the primary preceptor one (1) week prior to the scheduled presentation.

The presentation may incorporate any teaching aids the resident wishes. Typical presentations include a slide deck, handouts, or recommended readings prior to the event. All presentations should be interactive, evidence based, and a focused area of disease management. The case conference should be scheduled for one (1) hour to allow for the presentation and post-discussion or questions.

PGY1 RESIDENT-LEAD INITIATIVES (IN ADDITION TO SHARED INITIATIVES)

PHARMACY WEEK

Pharmacy Week at Brigham and Women's Hospital occurs the week immediately following the Midyear Clinical Meeting. The week entails staff appreciation activities (team games, pharmacy events), continuing education programs, coordinated food efforts, raffles, and prizes. The PGY1 residents are responsible for planning and organizing this event.

NEW STUDENT ORIENTATION

PGY1 Residents are responsible for on-boarding APPE students and completing department orientation sessions. Activities include:

- Providing preliminary paperwork to preceptors
- Completing orientation (HIPAA, computer introduction, hospital tour)
- Obtaining ID badges
- Granting SharePoint access
- Coordinating the preceptor hand-off

Requirements for Completion of the BWH PGY1 Pharmacy Residency Program

I, _____, understand that to graduate from the PGY1 Pharmacy Residency program at Brigham and Women's Hospital, I will have completed the following:

- Licensure as a pharmacist in the state of Massachusetts per to the timeline listed in the residency manual
- Completion of program and departmental orientation as defined in learning experience description
- Completion of all required rotation learning experiences (Orientation, Ambulatory, Cardiology, Critical Care, General Medicine, Infectious Diseases, Leadership and Safety, Advanced Integrated Clinical Pharmacy Practice (2 blocks), electives (3 blocks))
 - Completion of all longitudinal learning experiences (Research Project, Service activities and staffing)
- Completion of 80% Achieved for Residency of all objectives in Pharmacademic including at least half of all R1 objectives Achieved for Residency included within the 80%
- Completion of required formal presentations
 - ACPE accredited continuing education program
 - Case Conference
 - 10 departmental or multi-disciplinary presentations
 - Submission and Presentation (if selected) of Clinical Pearl at MSHP
 - Presentation/submission for presentation of year-long project at Midyear Vizient Meeting, a local pharmacy meeting, and at BWH
- Completion of professional practice requirements (clinical or operational staffing)
 - Every third weekend and as determined by departmental needs
 - Documentation of moonlighting as appropriate
 - Documentation of duty hours in PharmAcademic
- Completion of Medication Policy Requirements
 - At least one written drug administration guideline (DAG) completed and approved by DAG Committee
 - Completion of at least one medication use evaluation (MUE)
 - Completion of at least 1 P&T Perspectives article
- Completion of all required documentation
 - Initial assessment
 - All learning experience and preceptor and learning experience evaluations
 - Final assessment of resident and feedback
 - Completion and documentation of Teaching Certificate Program
 - Documentation of research as manuscript in a publishable format
 - Completion of electric residency binder/portfolio with all required documents

BWH PGY2 Cardiology Pharmacy Residency Program Appendix

PROGRAM GOALS

Program goals are set by the ASHP standard.

- Provide comprehensive medication management to patients with cardiovascular diseases following a consistent patient care process.
- Ensure continuity of care for patients with cardiovascular diseases during transitions between care settings.
- Demonstrate ability to manage formulary and medication-use processes for patients with cardiovascular diseases.
- Demonstrate ability to conduct a quality improvement or research project related to the care of patients with cardiovascular diseases.
- Demonstrate leadership skills and successful self-development.
- Demonstrate management skills in the provision of care for patients with cardiovascular diseases.
- Provide effective medication and practice-related education to patients with cardiovascular diseases, caregivers, health care professionals, students, and the public.
- Effectively employ appropriate preceptor roles when engaged in teaching students, pharmacy technicians, or fellow health care professionals in cardiovascular diseases.
- Demonstrate understanding of the management of cardiovascular (ACLS) medical emergencies.

LEARNING EXPERIENCES

For PGY2 residents, the eleven (11) learning experiences listed below comprise the required residency experiences for the program. External residents will be provided 4 weeks of elective time in which they may experience one 4-week rotation. Early commit residents will be provided 8 weeks of elective time in which they may experience two 4-week elective experiences (unless otherwise discussed with the RPD/residency coordinator). All required and elective learning experiences are listed below.

Required PGY2 Cardiology Learning Experiences*	Elective Learning Experiences	Longitudinal Experiences
<ul style="list-style-type: none"> • Orientation (1 week for early commit / 6 weeks for external) • Coronary Care ICU (6 weeks) • Cardiac Surgery ICU (4 weeks) • AMB – Cardiology Clinic (4 weeks) • AMB – Anticoagulation Management Service (4 weeks) • Electrophysiology (2 weeks) • General Cardiology (4 weeks) • Heart Failure (4 weeks) • Heart Transplant (4 weeks) • Hemostatic Antithrombotic (HAT) Stewardship (4 weeks) • Advanced Integrated Clinical Pharmacy Practice (4 weeks) 	<ul style="list-style-type: none"> • AMB – Primary Care Clinic (4 weeks) • AMB – Virtual Accelerator for Clinical Transformation (4 weeks) • Critical Care (<u>one</u> of the following): <ul style="list-style-type: none"> ○ Medical ICU (4 weeks) ○ Thoracic ICU (4 weeks) • Academia (4 weeks) • Emergency Medicine (4 weeks) • Medication Safety (4 weeks) 	<ul style="list-style-type: none"> • Research Project • Longitudinal Staffing and Heart Failure ACTIVE Clinic • Formal Presentation and Departmental Contributions • Committee Membership • Duty Hours/Moonlighting
*Unless otherwise approved by RAC; AMB = ambulatory; ICU = intensive care unit		

PROJECT TIMELINE

ACTION ITEM	SUBMIT TO	COMPLETION DATE
Project Proposal to ROC	ROC	ROC July Meeting
Project proposal to PRC	PRC	September
Detailed timeline submission	Project Preceptor(s)	End of September
IRB submission	IRB	End of September
ACC Abstract to PRC	PRC	December
ACC Abstract submission	ACC	January
ACC poster to PRC	PRC	February
Heart Week Resident CE	Pharmacists	February/March
Order ACC Poster Deadline	ACC	End of February
ACC Poster Presentation	ACC	March/April
Manuscript Drafted	Project Preceptor(s)	End of May
Manuscript Complete	Residency Coordinators	Resident Close Out Meeting - Last week of June
<i>ROC = resident oversight committee; PRC = peer review committee; IRB = investigational review board; ACC = American College of Cardiology</i>		

CARDIOLOGY PGY2 RESIDENT-LEAD INITIATIVES (IN ADDITION TO SHARED INITIATIVES)

HEART FAILURE ACTIVE CLINIC

The infusion clinic is an ambulatory service that provides the opportunity for heart failure patients with fluid overload to come to clinic and get intravenous diuresis in an effort to prevent an admission. It is currently run by nurse practitioners and nurses. This service will work as an 'on-call' program with the Cardiology PGY2 residents. The resident will answer any drug information questions they receive from the nurses or nurse practitioners. They may be requested to preform education and/or medication reconciliation with the patient by the team.

HEART WEEK CONTINUING EDUCATION

Heart Week at Brigham and Women's Hospital is held annually in February/March (as scheduling permits) with the goal of providing education to the pharmacy staff on cardiovascular related topics through CEs, pharmacist huddle meetings, and other related platforms. Cardiology PGY2 residents will be responsible for planning and organizing Heart Week, with guidance from preceptors.

Requirements for Successful Completion of the BWH Cardiology Pharmacy PGY2 Residency Program

I, _____, understand that to graduate from the pharmacy residency program at Brigham and Women's Hospital, I will have successfully completed the following:

- Successfully licensed as a practicing pharmacist in the state of Massachusetts within 120 days from the start date.
- Successful completion of all required rotation learning experiences
 - Orientation
 - Coronary Care ICU
 - Cardiac Surgery ICU
 - General Cardiology
 - Heart Failure
 - Hemostatic Antithrombotic (HAT) Stewardship
 - Ambulatory Anticoagulation Management Service
 - Heart Transplant
 - Ambulatory Cardiology Clinic
 - Advanced Integrated Clinical Pharmacy Practice
 - Electrophysiology
- Completion of 1 (external candidates) or 2 (internal candidates) elective learning experience(s)
- Successful completion of all longitudinal learning experiences
 - Research Project
 - Longitudinal Staffing and Heart Failure ACTIVE Clinic
 - Formal Presentation and Departmental Contributions
 - Committee Membership
 - Duty Hours/Moonlighting
- Document the completion of all assigned disease states in the resident topic discussion appendix in PharmAcademic
- Successfully reached 80% Achieved for Residency with objectives in PharmAcademic
 - Must include required objectives: R1.1.1, R1.1.2, R1.1.3, R1.1.4, R1.1.5, R1.1.6, R1.2.1, R 2.1.1, R2.1.2, R2.2.6, R2.2.7, R3.1.1, R3.2.2, R4.1.2, R5.1.1
- Adhere to moonlighting and duty hour policy and document monthly tracking in PharmAcademic
- Successful completion of longitudinal staffing and the Heart Failure ACTIVE Clinic duties
 - Central operations – every third weekend

- Documentation of all drug information questions answered and/or patient care notes when applicable
- Successful completion of formal presentation and departmental contributions
 - At least one written drug administration guideline (DAG) prepared for DAG Committee Review and presented at a Pharmacy and Therapeutics Committee
 - Successful completion of one ACPE-accredited continuing education program during heart week
 - At least 5 departmental or multi-disciplinary presentations
- Successful completion of research project
 - Resident poster presented at ACC scientific sessions or other national conference
 - Manuscript draft for publication
- Successful completion of all required documentation
 - Initial ASHP assessment
 - Quarterly self-assessment as part of the Resident Development Plan
 - All learning experience and preceptor evaluations
 - Final assessment of residency and feedback
- Obtained both Basic Life Support certification and Advanced Cardiac Life support by the end of residency year
- Completion of documentation of all deliverables in an electronic residency binder uploaded into the cardiology resident's folder and Pharmacademic

BWH PGY2 Critical Care Pharmacy Residency Program Appendix

PROGRAM GOALS

Program goals are set by the ASHP standard.

- In collaboration with the health care team, provide comprehensive medication management to critically ill patients following a consistent patient care process.
- Ensure continuity of care during transition of critically ill patients between care settings.
- Manage and facilitate delivery of medications to support safe and effective drug therapy for critically ill patients.
- Demonstrate ability to manage formulary and medication-use processes for critically ill patients, as applicable to the organization.
- Demonstrate ability to conduct a quality improvement or research project.
- Demonstrate leadership skills for successful self-development in the provision of care for critically ill patients.
- Demonstrate management skills in the provision of care for critically ill patients.
- Provide effective medication and practice-related education to critically ill patients, caregivers, health care professionals, students, and the public (individuals and groups).
- Effectively employ appropriate preceptor roles when engaged in teaching students, pharmacy technicians, or fellow health care professionals in critical care.

LEARNING EXPERIENCES

PGY2 Critical Care residents must complete the required learning experiences below. Standard length of time for a required learning experience is one month (4-5 weeks). Some elective experiences may be for shorter time periods depending on the resident schedule, rotation availability, and the ability for assigned objectives to be addressed in the defined period.

Required PGY2 Critical Care Learning Experiences*	Elective Learning Experiences	Longitudinal Experiences
<ul style="list-style-type: none"> • Orientation • Medical ICU • Burn/Trauma ICU • Neuromedicine ICU • Coronary Care ICU • Emergency Medicine • Infectious Diseases • Medication Safety • Advanced Integrated Clinical Pharmacy Practice • Selective required <ul style="list-style-type: none"> ○ Thoracic ICU / Cardiac Surgery ICU ○ Mixed Medical-Surgical ICU/Surgical ICU 	<ul style="list-style-type: none"> • Allergy • Solid Organ Transplant <ul style="list-style-type: none"> ○ Heart • Hemostatic and Antithrombotic Stewardship • Academia • Neonatal ICU • Any selective required learning experience that was not selected as a “required” experience • Any required Learning Experience may be considered as an elective Learning Experience with different Goals and Objectives 	<ul style="list-style-type: none"> • Research project • Formal Presentations and Departmental Contributions • Aminoglycoside Program • Committee Membership • Inpatient Orthopedic Anticoagulation Management (AMMO) Service • Medication Safety/Quality Improvement • Medication-use evaluation

*Unless otherwise approved by RAC

PROJECT TIMELINE

PGY2 Critical Care

ACTION ITEM	SUBMIT TO	COMPLETION DATE
Preceptor project proposals	ROC	Early Spring ROC Meeting
PRC project proposal	PRC	July/August
Detailed project timeline	Project Preceptor (s)	End of July/August
IRB submission	IRB	End of September
Conference abstract due	PRC, Conference	Dependent on conference deadlines
Conference poster due	PRC, Conference	Dependent on conference deadlines
Manuscript drafted	Project Preceptor(s)	End of May
Manuscript complete	Residency Coordinators	Resident Close Out Meeting – Last Week of June

ROC = resident oversight committee; PRC = peer review committee; IRB = investigational review board

Requirements for Completion of the BWH Critical Care Pharmacy PGY2 Residency Program

OVERVIEW

I, _____,

(Print)

(Signature)

(Date)

understand that to graduate from the Critical Care pharmacy residency program at Brigham and Women's Hospital, I will have completed the following:

- Licensed as a practicing pharmacist in the state of Massachusetts within 120 days from the start date.
- Completion of program and department orientation as appropriate per resident track (internal vs external residents) as defined in learning experience description
- Completion of all required rotation learning experiences
 - Medical ICU
 - Burn/Trauma ICU
 - Coronary Care ICU
 - Neuromedicine ICU
 - Emergency Department
 - Medication Safety
 - Infectious Diseases
 - Selective required learning experiences
 - Thoracic ICU / Cardiac Surgery ICU
 - Surgical ICU / Mixed Medical-Surgical ICU
- Completion of 1 (external candidates) or 2 (internal candidates) elective learning experience(s)
- Completion of all required longitudinal learning experiences
 - Research Project
 - Formal Presentations and Departmental Contributions
 - Committee Membership
 - Medication Safety and Quality Improvement
 - Advanced Integrated Clinical Pharmacy Practice

- Document the completion of all assigned disease states in the resident topic discussion appendix in PharmAcademic
- Reached 80% Achieved for Residency with required objectives in PharmAcademic
 - Must include required objectives (R1.1.1, R1.1.3, R1.1.4, R1.1.5, R1.1.6, R1.2.1, R1.3.1, R 2.1.1, R2.1.2, R2.1.3, R2.1.4, R2.2.6, R3.1.1, R3.2.2, R4.1.2)
- Completion of required formal presentations
 - Continuing education program
 - Departmental or multidisciplinary presentations - #5
 - Presentation of clinical pearl at a local, regional, or national conference
 - Presentation/submission for presentation of year-long project
- Completion of professional practice requirements
 - Completion of Advanced Integrated Clinical Pharmacy Practice and weekend staffing requirements
 - Documentation of moonlighting and duty hours as appropriate in PharmAcademic
 - Documentation of Benefit Time/Time off in PharmAcademic
- Completion of Medication Policy Requirements
 - Creation or revision of one drug administration guideline / monograph (reviewed by DAG Committee) and presented at a Pharmacy and Therapeutics Committee as appropriate
 - Publication in the Pharmacy and Therapeutics Committee Newsletter
- Completion of all required documentation
 - Initial assessment
 - Quarterly self-assessment as part of the Resident Development Plan
 - All learning experience and preceptor and learning experience evaluations
 - Final assessment of residency and feedback
 - Completion of electronic residency binder with all required documents uploaded into the critical care residency folder
- Other requirements
 - Advanced Cardiac Life Support/Basic Life Support certification

BWH PGY2 Emergency Medicine Pharmacy (Candidate Status) Residency Program Appendix

PROGRAM GOALS

Program goals are set by the ASHP standard.

- In collaboration with the health care team, provide comprehensive medication management to patients following a consistent patient care process
- Ensure continuity of care during patient transitions between care settings
- Manage and facilitate delivery of medications to support safe and effective drug therapy for patients
- Demonstrate ability to manage formulary and medication-use processes for patients, as applicable to the organization
- Demonstrate ability to conduct a quality improvement or research project to improve patient care in the Emergency Medicine practice area
- Demonstrate leadership skills for successful self-development in the provision of patient care
- Demonstrate management skills in the provision of patient care
- Provide effective medication and practice-related education to patients, caregivers, health care professionals, students, and the public (individuals and groups)
- Effectively employ appropriate preceptor roles when engaged in teaching students, pharmacy technicians, or fellow health care professionals
- Participate in and exercise leadership in the management of medical emergencies
- Describe the role of the poison center or medical toxicologist in the care of the toxicology patient

LEARNING EXPERIENCES

PGY2 Emergency Medicine residents must complete the required learning experiences below. Standard length of time for a required learning experience is one month. Some experiences may be for shorter time periods depending on the resident schedule, rotation availability, and the ability for assigned objectives to be addressed in the defined period.

Required PGY2 Emergency Medicine Learning Experiences*	Elective Learning Experiences	Longitudinal Experiences
<ul style="list-style-type: none"> • Orientation • Emergency Medicine I • Emergency Medicine II • Emergency Medicine - Overnight • Community Emergency Medicine • Poison Center/Toxicology • Burn/Trauma ICU • Neurosciences ICU • Medication Safety – Emergency Medicine • Advanced Integrated Clinical Pharmacy Practice • Selective required <ul style="list-style-type: none"> ○ Medical ICU/Mixed Medical Surgical ICU 	<ul style="list-style-type: none"> • Pediatric Emergency Medicine • Infectious Diseases • Allergy • Transitions of Care • Coronary Care ICU • Cardiac Surgery ICU • Hemostatic and Antithrombotic Stewardship 	<ul style="list-style-type: none"> • Emergency Medicine Leadership/Administration • Research Project & Medication Use Evaluation • Pharmacy Department Contributions, Staffing, and Presentations • Committee Assignments
<p>Rotation length: 4 weeks; ED I and ED II are 4-6 weeks; Poison Center/Toxicology is 2 weeks; Orientation is 6 weeks for external residents, 1 week for internal residents.</p> <p>*Unless otherwise approved by RPD/RAC</p>		

PROJECT TIMELINE

PGY2 Emergency Medicine

ACTION ITEM	SUBMIT TO	COMPLETION DATE
Preceptor project proposals	ROC	Early Spring ROC meeting
PRC project proposal	PRC	July/August
Detailed project timeline	Project preceptors	End of July/August
IRB submission	IRB	End of September
Conference abstract due	PRC, conference	Deadline dependent on conference deadlines
Conference poster due	PRC, conference	Deadline dependent on conference deadlines
Manuscript draft	Project preceptors	End of May
Manuscript complete	Residency Program Director and Coordinators	Resident close out meeting- last week of June
<p><i>ROC = resident oversight committee; PRC = peer review committee; IRB = investigational review board</i></p>		

Requirements for Successful Completion of the BWH Emergency Medicine Pharmacy (Candidate Status) PGY2 Residency Program

OVERVIEW

I, _____
(Print) (Signature) (Date)

understand that to graduate from the Emergency Medicine (EM) pharmacy residency program at Brigham and Women's Hospital, I will have successfully completed the following:

- Licensed as a practicing pharmacist in the state of Massachusetts within 120 days from the start date.
- Completion of program and department orientation as appropriate per resident track (internal vs external residents) as defined in learning experience description.
- Completion of all required rotation learning experiences
 - Orientation
 - Emergency Medicine I
 - Emergency Medicine II
 - Community Emergency Medicine
 - Emergency Medicine – Overnight
 - Poison Center/Toxicology
 - Burn Trauma ICU
 - Neurosciences ICU
 - Medication Safety – Emergency Medicine
 - Advanced Integrated Clinical Pharmacy Practice
 - Selective required:
 - Medical ICU/Mixed Medical Surgical ICU
- Completion of 1 (external candidates) or 2 (internal candidates) elective learning experiences
- Completion of all required longitudinal learning experiences
 - Committee Assignments
 - Emergency Medicine Leadership/Administration
 - Research Project & Medication Use Evaluation
 - Pharmacy Department Contributions, Staffing, and Presentations

- Document the completion of all required PGY2 Emergency Medicine Appendix topics in Pharmacademic
- 80% of objectives for the residency are required to be achieved for residency
 - The following objectives must be achieved for residency
 - R1.1.5, R1.1.7, R2.1.1, R2.1.2, R2.2.6, R3.2.1, R4.1.2, R4.1.3, R4.1.4, and R5.1.1
 - Completion of documentation of required deliverables per the EM Required Deliverables Table
- Completion of required formal presentations and research
 - Continuing education program
 - EM clinical pearl email to EM interdisciplinary staff
 - Submission of year-long project to a national conference and completion of a manuscript draft suitable for publication
 - 5 departmental or multidisciplinary presentations
 - Submission of a clinical pearl to a national/regional conference
- Completion of professional practice requirements
 - Completion of Advanced Integrated Clinical Pharmacy Practice and weekend staffing requirements
 - Documentation of moonlighting and duty hours as appropriate in PharmAcademic
- Completion of all required documentation
 - Initial assessment
 - Quarterly self-assessment as part of the Resident Development Plan
 - All learning experience and preceptor evaluations
 - Final assessment of residency and feedback
- Other Requirements
 - Attend one regional or national research summit/conference
 - Obtain Basic Life Support/ Advanced Cardiac Life Support/Pediatric Advanced Life Support certification by the end of the residency year

BWH PGY2 Infectious Diseases Pharmacy Residency Program Appendix

PROGRAM GOALS

Program goals are set by the ASHP standard.

- In collaboration with the health care team, provide comprehensive medication management to patients with infectious diseases following a consistent patient care process.
- Ensure continuity of care during infectious diseases patient transitions between care settings.
- Manage antimicrobial stewardship activities.
- Demonstrate ability to manage formulary and medication-use processes for infectious diseases patients, as applicable to the organization and antimicrobial stewardship program.
- Demonstrate ability to conduct a quality improvement or research project.
- Manage and improve anti-infective-use processes
- Establish oneself as an organizational expert for infectious diseases pharmacy-related information and resources.
- Demonstrate leadership skills for successful self-development in the provision of care for infectious diseases patients.
- Demonstrate management skills in the provision of care for infectious diseases patients.
- Provide effective medication and practice-related education to infectious diseases patients, caregivers, health care professionals, students, and the public (individuals and groups).
- Effectively employ appropriate preceptor roles when engaged in teaching students, pharmacy technicians, or fellow health care professionals about care of patients with infectious diseases.

LEARNING EXPERIENCES

PGY2 Infectious Diseases residents must complete the required learning experiences below. Standard length of time for a required learning experience is one month (4 weeks). Some elective experiences may be for shorter time periods depending on the resident schedule, rotation availability, and the ability for assigned objectives to be addressed in the defined period.

Required PGY2 Infectious Diseases Learning Experiences*	Elective Learning Experiences	Longitudinal Experiences
<ul style="list-style-type: none"> • Orientation • ID General Consult • ID Immunocompromised Consult • ID Advanced Consult • BWH Antimicrobial Stewardship • Infection Control • Microbiology • HIV Clinic • Outpatient Parenteral Antimicrobial Therapy (OPAT) • Academia • Advanced Integrated Clinical Pharmacy Practice 	<ul style="list-style-type: none"> • Allergy • Lung Transplant • Intensive Care <ul style="list-style-type: none"> ○ Medical (MICU) ○ Burn/Trauma ○ Thoracic (TICU) ○ Surgical (SICU) ○ Coronary Care (CCU) • Emergency Medicine • Medication Safety • Investigational Drug Services • MGH Antimicrobial Stewardship • Faulkner Antimicrobial Stewardship • NWH Antimicrobial Stewardship • MGB Pharmacy Informatics 	<ul style="list-style-type: none"> • Research Project • Formal Presentations and Departmental Contributions • Committee Membership • Medication Safety/Quality Improvement • Medication Use Evaluation • Service Activities (Staffing)
*Unless otherwise approved by RAC		

PROJECT TIMELINE

PGY2 Infectious Diseases

ACTION ITEM	SUBMIT TO	COMPLETION DATE
Preceptor project proposals	ROC	Early Spring ROC Meeting
PRC project proposal	PRC	July/August
Detailed project timeline	Project Preceptor (s)	End of July/August
IRB submission	IRB	End of September
Conference abstract due	PRC, Conference	Dependent on conference deadlines
Conference poster due	PRC, Conference	Dependent on conference deadlines
Manuscript drafted	Project Preceptor(s)	End of May
Manuscript complete	Residency Coordinators	Resident Close Out Meeting – Last Week of June
<i>ROC = resident oversight committee; PRC = peer review committee; IRB = investigational review board</i>		

Requirements for Successful Completion of the BWH Infectious Diseases Pharmacy PGY2 Residency Program

OVERVIEW

I, _____,

(Print)

(Signature)

(Date)

understand that to graduate from the Infectious Diseases pharmacy residency program at Brigham and Women's Hospital, I will have successfully completed the following:

- Successfully licensed as a practicing pharmacist in the state of Massachusetts within 120 days from the start date.
- Successful completion of program and department orientation as appropriate per resident track (internal vs external residents) as defined in learning experience description
- Successful completion of all required rotation learning experiences
 - Infectious Diseases General Consult
 - Infectious Diseases Immunocompromised Consult
 - Infectious Diseases Advanced Consult
 - BWH Antimicrobial Stewardship
 - Infection Control
 - Microbiology
 - HIV Clinic
 - Outpatient Parenteral Antimicrobial Therapy (OPAT)
 - Academia
 - Advanced Integrated Clinical Pharmacy Practice
- Successful completion of 2 (external candidates) or 3 (internal candidates) elective learning experience(s)
- Successful completion of all required longitudinal learning experiences
 - Research Project
 - Formal Presentations and Departmental Contributions
 - Committee Membership
 - Medication Safety and Quality Improvement
 - Medication Use Evaluation
- Successfully document the completion of all assigned disease states

- Successfully reached 80% Achieved for Residency with required objectives
 - Must include required objectives (R1.1.1, R1.1.3, R1.1.4, R1.1.5, R1.1.6, R1.2.1, R1.3.1, R1.3.2, R1.3.3, R2.1.1, R2.1.2, R2.1.3, R2.2.6, R2.3.2, R3.1.1, R3.2.1, R3.2.2, R3.3.1, R4.1.2, and R4.2.1)

- Successful completion of required formal presentations
 - Continuing education program
 - Departmental or multidisciplinary presentations - 5 presentations
 - Submission of a poster or clinical pearl presentation at a local, regional, or national conference
 - Successful presentation/submission for presentation of residency project

- Successful completion of professional practice requirements
 - Completion of Service commitment (staffing) requirement
 - Documentation of moonlighting and duty hours as appropriate
 - Documentation of Benefit Time/Time off

- Successful completion of Medication Policy Requirements
 - At least one written or revised drug monograph prepared for DAG Committee Review and presented to the Pharmacy and Therapeutics (P&T) Committee
 - At least one written or revised infectious diseases-related guideline presented to the Antimicrobial Subcommittee and P&T Committee

- Successful completion of all required documentation
 - Initial assessment
 - Quarterly self-assessment as part of the Resident Development Plan
 - All learning experience and preceptor evaluations
 - Final assessment of residency and feedback

- Successful completion of the residency program appendix

- Completion of electronic residency binder with all required documents uploaded into the pharmacy shared folder

BWH PGY2 Investigational Drugs & Research (Candidate Status) Pharmacy Residency Program Appendix

PROGRAM GOALS

Program goals are set by the ASHP standard.

- In collaboration with the health care team, provide comprehensive medication management to research participants following a consistent patient care process.
- Ensure continuity of care during research participant transitions between care settings.
- Manage and facilitate delivery of investigational products to support safe and effective drug therapy for research participants.
- Manage the medication-use processes for investigational drug services, as applicable to the organization.
- Demonstrate ability to conduct a quality improvement or research project.
- Serve as an authoritative resource on the optimal use of the investigational products used in clinical research.
- Demonstrate ability to assess the feasibility of research protocols for the organization.
- Serve as an authoritative source to the institutional review board (IRB) to ensure the safety of human subjects.
- Demonstrate the ability to evaluate the federal, state, and the institution regulations as it pertains to clinical trials.
- Demonstrate leadership skills for successful self-development in the provision of care for research participants.
- Demonstrate management skills in the provision of care for research participants.
- Demonstrate skills in the financial management and budgeting to conduct clinical trials.
- Provide effective clinical trial and medication education to participants, caregivers, health care professionals, students, and the public (individuals and groups).
- Effectively employ appropriate preceptor roles when engaged in teaching students, pharmacy technicians, or fellow health care professionals about care of research participants and investigational drug services.

LEARNING EXPERIENCES

PGY2 Investigational Drugs and Research residents must complete the required learning experiences below. Of the elective learning experiences, the resident has the option of selecting 2. The standard length of time for a learning experience is 4 weeks,

unless stated otherwise in parenthesis (denoting length in weeks) next to the rotation name. The required longitudinal experience length is listed next to each individual experience. Some elective experiences may be for shorter time periods depending on the resident schedule, rotation availability, and the ability for assigned objectives to be addressed in the defined period. If applicable, the shorter time is listed below with their name.

Required PGY2 Investigational Drugs and Research Learning Experiences*	Elective Learning Experiences Resident to select 2	Longitudinal Experiences
<ul style="list-style-type: none"> • Orientation • Investigational Drug Services Operations ** • Protocol and Project Management** • Hematology/Oncology Research Operations I • Disease State/Study Team Operations I • Human Research Affairs Compliance and Education Office/Institutional Review Board** (6 weeks) • Leadership in Investigational Drug Services • BWH Research Administration/Center for Clinical Investigation • Digital Health eCare Pharmacy Informatics • Infectious Disease/HIV Vaccine Trial Unit • NIH/NIAD: DAIT (Division of Allergy Immunology and Transplantation) Clinical Research Operations 	<ul style="list-style-type: none"> • USP (United States Pharmacopeia) Compounding Standards/Investigational Drug Compounding and Safety • Disease State-Study Team Operations II • Industry • Dana Farber Cancer Institute Center for Cancer Therapeutic Innovation (2 weeks) • Additional options to be determined annually after discussion with resident and program leadership 	<ul style="list-style-type: none"> • IRB Membership (47 weeks) • Teaching (Student Preceptorship, 25 weeks) • Investigational Drug Services Residency Project (50 weeks) • Pharmacy Committee Assignment (41 weeks) • Protocol and Project Management (50 weeks) • Pharmacy Continuing Education (21 weeks) • Investigational Drug Service Operations and Staffing (50 weeks)
<p>*=Unless otherwise approved by RPD/RAC **= Core rotation evaluated as part of longitudinal learning experience Rotation length: 4 weeks, unless otherwise stated above or as determined by RPD/RAC</p>		

Orientation	2 weeks
Residency Rotational Learning Experiences	47 weeks
Conferences	1 week
Dedicated Research Project Time	2 weeks

PROJECT TIMELINE

PGY2 Investigational Drugs & Research

ACTION ITEM	SUBMIT TO	COMPLETION DATE
Disease group/Study team rotation selection	RPD/RPC	April/May (prior to start of program)
IRB Membership	RPD/IRB	July/August
Research Project Topic Proposal	RPD/Project preceptor(s)	July/August
Protocol Management Responsibilities	RPD/RPG	August/September
Elective rotation selections	RPD/RPC	November/December
Research Project Drafted	Project preceptor(s)	End of May
Research Project Complete	RPD, RPG	Resident Close-Out Meeting – Last week of June
<i>RPD = Residency Program Director; IRB = Institutional Review Board; RPG = Resident Preceptor Group; RPC = Residency Program Coordinator</i>		

Requirements for Completion of the BWH Investigational Drugs & Research (Candidate Status) PGY2 Pharmacy Residency Program

OVERVIEW

I, _____
(Print) (Signature) (Date)

understand that to graduate from the Investigational Drug Service (IDS) pharmacy residency program at Brigham and Women's Hospital, I will have completed the following:

- Licensed as a practicing pharmacist in the state of Massachusetts within 120 days from the start date.
- Completion of program and department orientation as appropriate per resident track (internal vs external residents) as defined in learning experience description.
- Completion of all required rotation learning experiences
 - Orientation
 - Investigational Drug Services Operations I
 - Protocol/Project Management
 - Hematology/Oncology Research Operations I
 - Infectious Disease/HIV Vaccine Trial Unit
 - Human Research Affairs Compliance and Education Office/Institutional Review Board
 - Leadership in Investigational Drug Services
 - BWH Research Administration/Center for Clinical Investigation
 - Disease State/Study Team Operations I
 - NIH/NIAD: DAIT (Division of Allergy Immunology and Transplantation) Clinical Research Operations
 - Digital Health eCare (DHeC) Pharmacy Informatics
- Completion of 2 elective learning experiences
- Completion of all required longitudinal learning experiences
 - IRB Membership
 - Teaching (Student Preceptorship)
 - Investigational Drug Services Residency Project

- Pharmacy Committee Assignment
 - IDS Protocol Management responsibilities
 - Pharmacy Continuing Education Presentation
 - Staffing responsibilities and duty hours
- Meet and document the completion of progress of each quarter with residency program director in the IDR Training Program Spreadsheet
 - Reached 80% Achieved for Residency with required objectives
 - Must include required objectives (R1.1.1, R1.3.1, R1.3.3, R2.1.1, R2.2.2, R3.1.2, R3.2.1, R3.2.3, R3.3.1, R4.1.1, R4.2.4, R5.1.1, R5.1.3)
 - No more than 3 objectives can be marked as NI or NA
 - Completion of required formal presentations
 - Departmental continuing education program - #1
 - Departmental or multidisciplinary presentations - #5
 - Presentation of year-long project - #1
 - Completion of professional practice requirements
 - Completion of IDS monthly staffing requirements - 28 hours/month
 - Completion of Committee assignment and associated work per LED and committee rotation preceptor
 - Documentation of duty hours as appropriate in PharmAcademic
 - Documentation of Benefit Time/Time off
 - Completion of year-long protocol management (act as primary pharmacist on at least 5 new investigational drug protocols)
 - Create medication entry in Pharmacy Dictionary
 - Adequately build a protocol in IDSIS
 - Request a new or change of EPIC medication entry in ServiceNow
 - Completion of Institutional Review Board (IRB) Membership
 - Submitted for membership within 45 days of start date
 - Attend one monthly IRB meeting as a voting member
 - Completion of all required documentation
 - Orientation checklist (including orientation completion agreement)
 - Initial assessment
 - Quarterly self-assessment as part of the Resident Development Plan
 - All learning experience and preceptor and learning experience evaluations
 - Final assessment of residency and feedback
 - Completion of electronic residency binder with all required documents uploaded into the IDS residency folder

- Other Requirements
 - Attend one regional or national research summit/conference
 - Obtain Basic Life Support and Advanced Cardiac Life Support certification by the end of the residency year

BWH PGY2 Thrombosis and Hemostasis (Demonstration) Pharmacy Residency Program Appendix

PROGRAM GOALS

Program goals are set by the ASHP standard.

- In collaboration with the health care team, provide comprehensive thrombosis and hemostasis management to medical, surgical, and critically ill patients following a consistent patient care process.
- Ensure continuity of care during transition of critically ill patients between care settings.
- Manage and facilitate delivery of medications to support safe and effective drug therapy for patients.
- Demonstrate ability to manage formulary and medication-use processes as applicable to the organization.
- Demonstrate ability to conduct a quality improvement or research project.
- Demonstrate leadership skills for successful self-development in the provision of care for patients' thrombosis and hemostasis management.
- Demonstrate management skills in the provision of care for thrombosis and hemostasis management
- Provide effective medication and practice-related education to patients, caregivers, health care professionals, students, and the public (individuals and groups).
- Effectively employ appropriate preceptor roles when engaged in teaching students, pharmacy technicians, or fellow health care professionals as it relates to thrombosis and hemostasis.
- Demonstrate understanding of the management of cardiovascular (ACLS) medical emergencies.

LEARNING EXPERIENCES

(Demonstration) PGY2 Thrombosis and Hemostasis residents must complete the required learning experiences below. Standard length of time for a required learning experience is one month (4-5 weeks), with specifics noted below. Some elective experiences may be for shorter time periods depending on the resident schedule, rotation availability, and the ability for assigned objectives to be addressed in the defined period.

Required PGY2 Thrombosis and Hemostasis Learning Activities	Elective Learning Activities	Longitudinal Activities
<ul style="list-style-type: none"> • Orientation • Advanced Integrated Clinical Pharmacy Practice • Anticoagulation Management Service (AMS) • Special Coagulation Laboratory and Benign Hematology • Coronary Care ICU • Cardiac Surgery ICU • Emergency Medicine • Hemostatic Antithrombotic Stewardship (HAT) I • Hemostatic Antithrombotic Stewardship (HAT) II • Medication Safety and Pharmacy Leadership • Neuroscience ICU • Elective 	<p>To be determined annually after discussion with resident and program leadership</p>	<ul style="list-style-type: none"> • Research • Formal Presentations and Departmental Contributions • Committee Responsibilities • Staffing and Anticoagulation Management Service
<p>ICU: intensive care unit</p> <p>All required rotations are 4 weeks in length, except for Special Coagulation Laboratory and Benign Hematology which is a 5-week learning experience. All longitudinal rotations will span the 52-week residency year and specific time commitments are noted within the learning descriptions.</p>		

PROJECT TIMELINE

PGY2 Thrombosis and Hemostasis

ACTION ITEM	SUBMIT TO	COMPLETION DATE
Preceptor project proposals	ROC	Early Spring ROC Meeting
PRC project proposal	PRC	July/August
Detailed project timeline	Project Preceptor (s)	End of July/August
IRB submission	IRB	End of September
Conference abstract due	PRC, Conference	Dependent on conference deadlines
Conference poster due	PRC, Conference	Dependent on conference deadlines
Manuscript drafted	Project Preceptor(s)	End of May
Manuscript complete	Residency Coordinators	Resident Close Out Meeting – Last Week of June
<p><i>ROC = resident oversight committee; PRC = peer review committee; IRB = investigational review board</i></p>		

Requirements for Successful Completion of the BWH PGY2 Thrombosis and Hemostasis (Demonstration) Pharmacy Residency Program

OVERVIEW

I, _____,

(Print)

(Signature)

(Date)

understand that to graduate from the Thrombosis and Hemostasis pharmacy residency program at Brigham and Women's Hospital, I will have successfully completed the following:

- Successfully licensed as a practicing pharmacist in the state of Massachusetts within 120 days from the start date.
- Successful completion of program and department orientation as appropriate per resident track (internal vs external residents) as defined in learning experience description
- Successful completion of all required rotation learning experiences
 - Orientation
 - Advanced Integrated Clinical Pharmacy Practice
 - Anticoagulation Management Service (AMS)
 - Special Coagulation Laboratory and Benign Hematology
 - Coronary Care ICU
 - Cardiac Surgery ICU
 - Emergency Medicine
 - Hemostatic Antithrombotic Stewardship (HAT) I
 - Hemostatic Antithrombotic Stewardship (HAT) II
 - Medication Safety and Pharmacy Leadership
 - Neuroscience ICU
 - Elective
- Successful completion of 1 (external candidates) or 2 (internal candidates) elective learning experience(s)
- Successful completion of all required longitudinal learning experiences
 - Staffing and Anticoagulation Management Service
 - Formal Presentations and Departmental Contributions

- Committee Responsibilities
 - Research
- Successfully document the completion of all assigned disease states in the resident topic discussion spreadsheet
 - Successfully reached 80% Achieved for Residency with required objectives
 - Must include required objectives (R1.1.1, R1.1.3, R1.1.4, R1.1.5, R1.1.6, R1.2.1, R1.3.1, R2.1.2, R2.1.3, R2.3.6, R3.1.1, R3.2.2, R4.1.2)
 - Successful completion of required formal presentations
 - Continuing education program
 - In-service ad hoc during rotation(s)
 - Departmental or multidisciplinary presentations - #5
 - Submission of clinical pearl at a local, regional, or national conference
 - Successful presentation/submission for presentation of year-long project
 - Successful completion of professional practice requirements (staffing)
 - Completion of Advanced Integrated Clinical Pharmacy Practice and weekend staffing requirements
 - Documentation of moonlighting and duty hours as appropriate in PharmAcademic
 - Documentation of Benefit Time/Time off in PharmAcademic
 - Successful completion of Medication Policy Requirements
 - At least one written drug administration guideline (DAG) and/or IV push guideline prepared for DAG Committee Review and presented at a Pharmacy and Therapeutics Committee as appropriate
 - Publication in the Pharmacy and Therapeutics Committee Newsletter
 - Successful completion of all required documentation
 - Initial assessment
 - Quarterly self-assessment as part of the Resident Development Plan
 - All learning experience and preceptor and learning experience evaluations
 - Final assessment of residency and feedback
 - Completion of electronic residency binder with all required documents uploaded into the THM Binders folder
 - Other requirements
 - Obtained both Basic Life Support certification and Advanced Cardiac Life support by the end of the residency year
 - Completion of Program Appendix
 - Completion of ASHP Anticoagulation Certificate Program