



BUILDING THE FUTURE PHARMACY RESIDENCY

2015-2016 ANNUAL REPORT

Dear Prospective Resident:

Be Exceptional. This is Boston Medical Center's most prestigious award, given out each year to exemplary individuals and teams that embody our mission, "Exceptional care. Without exception." Be exceptional. This simple phrase also characterizes what it means to be part of Boston Medical Center and care for complex patients in a dynamic healthcare environment. It is the engine that drives us every day to make our patients' lives and health better.



What makes us exceptional? First, it is the high-quality, accessible, patient-centered care we deliver. We provide an invaluable service to our community in which 30 percent of patients do not speak English as a primary language and 80 percent of patients come from underserved, vulnerable populations that rely on government payors. We deliver compassionate care across the continuum from our ambulatory care clinics with over 70 specialties, through the busiest emergency department in New England, and then back to the community through an integrated transition-of-care model.

Second, Boston Medical Center fosters a collaborative, multidisciplinary, learning environment where all health care providers can positively impact patient care. The Department of Pharmacy is highly integrated into the infrastructure of the organization from senior leadership at the Vice President level to the front lines of the inpatient medical center, ambulatory care clinics, outpatient pharmacies, and even the BMC HealthNet Plan, BMC's Massachusetts Medicaid insurance plan.

Third, our ASHP-accredited residency training program leverages its 29-year history to continue to drive innovations in pharmacy practice and residency training. For example, quality improvement is a core element of our training program. Through the application of improvement science, an exciting, dynamic, and evolving field of health care, we train residents to lead improvements in patient care every day at Boston Medical Center.

Finally, our department's continued growth puts us in a position to drive the agenda in the years to come. In just the past two years, we have doubled the number of ambulatory care pharmacists, billed for over 5,000 patient visits with a goal of over 10,000 next year, and grown our retail business from \$23 million to more than \$130 million.

Throughout this report, you will find examples of our commitment to provide both "exceptional care, without exception" and an innovative, dynamic, and exciting training experience. We hope they resonate with you and that you choose Boston Medical Center as the place to launch your career.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. Horbowicz', written in a cursive style.

KEVIN J. HORBOWICZ, PHARM.D., RPH, BCPS
Clinical Manager - Critical Care & Emergency Medicine

EXCEPTIONAL CARE WITHOUT EXCEPTION: PATIENT SPOTLIGHT



Every day at BMC, our pharmacy staff makes an impact on the lives of countless patients. This can be seen throughout the department through the work of our pharmacists, technicians, and residents. The work may be behind the scenes in the central pharmacy, on the floor while rounding with the medical team, or direct one-on-one interaction. Renee Hall, one of our 2015-2016 PGY-1 residents, established a special rapport with one of her patients that significantly impacted this patient's healthcare experience.

Teresa Gifford is a delightful woman with a several year history of end-stage kidney disease requiring dialysis. After four years of being on the transplant list, a kidney became available. Brand new to Boston Medical Center, Teresa came in for her renal transplant and was in the surgical ICU while Renee was on rotation. All transplant patients are required to be counseled and seen by pharmacy before, during, and after their transplant. During a counseling session led by Renee, Teresa became confused. She was overwhelmed, and the session could not be completed. There had been reports of Teresa having trouble sleeping and hallucinating—including seeing ants on the wall. Renee thought that perhaps a medication could be causing this confusion and noticed that Teresa was receiving lorazepam.

Teresa (right) had a lovely way of summarizing her feelings about Renee (left). At one of her clinic visits, she had noticed and was very excited to see that Renee was newly engaged. According to Teresa, Renee is a “wonderful girl with a beautiful diamond that fits her.”

The decision was made to discontinue the lorazepam. A day later, Teresa seemed like a whole new person—coherent and no longer confused.

Renee again counseled Teresa on her medications, this time with better results. However, it was still a lot of information for Teresa to take in. Renee adeptly found a way to work with Teresa. Over a few hours, Renee would teach one medication, and then take a break to avoid overwhelming her. After the break, Teresa would teach back what she had previously learned and then move on to the next medication. Teresa noted to Renee that “it’s like you’re my teacher” and realized that each break that they took was “recess.” Having a strong understanding of medications is always important. For transplant patients, it is particularly important because of the need to prevent rejection. If there is any concern that a patient may not be able to appropriately take their medications, it needs to be addressed. After the time and effort that Renee and Teresa put in together, Teresa was able to be discharged home, instead of to rehabilitation.

Months later, Renee was on rotation in the renal clinic when Teresa happened to have an appointment. Teresa was doing well, both personally and medically with her transplant. This reunion enabled each to continue their relationship and allowed Renee to promote true continuity of care. These encounters clearly demonstrate Renee's dedication to patient care. However, that's not where the story ends.

Later in the year, while Renee was on another inpatient rotation on the renal service, Teresa was unfortunately readmitted to the hospital. Due to a difficult personal situation at the time of admission, a recommendation was made to start lorazepam. Fortunately, Renee knew Teresa's history and was able to intervene and recommend an alternative option. This continuity of care and diligence by Renee avoided another prolonged hospital stay. During this admission, Renee led another medication counseling session with Teresa and more importantly, provided a familiar face and comfort during a difficult time.

At the time of writing, Teresa is continuing to do well with her transplanted kidney. She lives at home with her two Shih Tzus that she adores. Teresa could not say enough good things about the care she received while at BMC, including the doctors, nurses, pharmacists, and all others involved in her care. She said "everybody is like family," and was particularly complimentary of Renee. She described Renee as a personable, caring, and fantastic person. She could tell that Renee had put in extra time and that she had gone above and beyond her expected duties. Renee has completed her residency and has chosen to continue her career at BMC as a clinical medicine pharmacist.

PHARMACY PROJECT SPOTLIGHT

Jennifer Empfield PharmD, BCPS was the leader for her resident quality improvement project to provide pharmacist attendance at adult code blue resuscitations (CBR). She identified the need for pharmacist attendance at code blues and created a team of pharmacists to address and resolve anticipated barriers and while fostering engagement with frontline staff. With the support of an interdisciplinary code committee and the leadership team in the department, this service was approved and implemented. This service helped align our department with ASHP's Practice Advancement Initiative and increased the quality of care that we provide to our patients.

With Dr. Empfield's tireless leadership, the pharmacists have remained engaged in the training program which involves a didactic and practical/hands-on component. Training of all full and part time pharmacists was completed four months ahead of schedule, facilitating implementation over one year ahead of schedule! As part of the initiative, the pharmacists completed a survey

before and after training to assess their competence and confidence with participating in CBRs. We found that competence was high prior to training and remained high after the completion of the program. Pharmacists' comfort with CBR improved from a mean of 3.2 to 4.1 (scale 1-5), a statistically significant and meaningful change.

Pharmacist attendance at codes was fully implemented seven days a week in March 2016 for day and evening shifts. At baseline, 8% of adult respiratory and cardiac arrests had pharmacist attendance. As of June 2016, 90% of adult cardiac and respiratory arrests had a pharmacist present. We continue to monitor pharmacist attendance and train new staff. The success of this project was made possible by Dr. Empfield's commitment, enthusiasm, organization, advocacy, and hard work.

IMPROVED RESIDENCY SCHOLARSHIP THROUGH USE OF QUALITY IMPROVEMENT METHODS

William R. Vincent III, PharmD, BCPS, BCCCP & Lindsay M. Arnold, PharmD, BCPS Scholarship Committee Co-Chairs

In the 2015-2016 residency class, we shifted our paradigm for resident scholarship projects away from research and to quality improvement (QI). The transition was inspired by the combination of a growing institutional focus on QI, the need to demonstrate improvements in medication use systems and patient care for the Department of Pharmacy, and evolving residency training standards.

Historically, resident scholarship projects at BMC have contributed to improvements in patient care and have been received well by the professional community. Similar to other institutions, we have successfully employed varying methodology for projects, ranging from prospective studies to medication use evaluations. Regardless of approach, IRB-approved research that implements and evaluates an intervention is difficult to achieve in the same residency year due to time and resource constraints and specialized skills needed. Further, successful publication of resident research is uncommon nationally and new ASHP residency training project-related standards focus on improving care and the medication use system. The SQUIRE 2.0 publication guidelines offer a clear standard for pharmacy resident QI projects that improve the quality, safety, and value of patient care. Adoption of quality improvement methods offers a different path for resident scholarship that enables the resident to demonstrate improved care and publish a quality improvement report that can provide a guide for other institutions seeking to improve care.

Quality improvement science is widely applied to manufacturing processes including pharmacy operations, but there is limited experience demonstrating improved clinical pharmacy services through application of QI science. The Institute for Healthcare Improvement Model for Improvement (MFI) consists of three fundamental questions addressing goals, changes, and measurements and uses Plan-Do-Study-Act (PDSA) cycles to drive improvement efforts. During the 2015-2016 residency year, we applied the MFI across pharmacy residency projects to:

- Reduce delays in medication administration for critically ill patients (E. Kuhn)
- Implement department-wide code blue response (J. Empfield)
- Reduce errors of omission for antibiotics in the emergency department (R. Hall)
- Improve adherence to procalcitonin guidelines in adult internal medicine patients (J. Bui)
- Increase use of premix parenteral nutrition (E. Boo)
- Implement department-wide i-vent handoff communication (B. Gendron)

All residents completed QI training via the IHI Open School and attended QI lectures and workshops provided both within and outside of the department. The projects were largely successful and well received across the department and the institution. Each of our residents developed a new skill set that will enable them to act as change agents throughout their careers.

The scholarship committee is excited to build upon its initial success by offering more structured workshops and guidance for the 2016-2017 residents during their QI journeys.

COMPARISON OF OUTCOMES-BASED RESEARCH AND QUALITY IMPROVEMENT PROJECTS

PROJECT COMPONENT	OUTCOMES-BASED RESEARCH	QUALITY IMPROVEMENT
Description of problem/ background	Conduct literature review Describe local experience or baseline data	Conduct literature review, describe local problem Establish theoretical framework through use of a driver diagram, fishbone diagram and current and ideal process maps
Goal	Identify null hypothesis, research question to disprove	Identify project aim to accomplish
Endpoints	Define primary and secondary endpoints and outcomes	Define outcome, process, and balancing metrics
Interventions	Describe intervention (existing or ongoing implementation)	Describe targeted interventions based on driver diagram Describe plan-do-study-act (PDSA) cycles Describe institutional context
Institutional Review Board (IRB)	IRB required, typically exempt or expedited review Human subjects protection training required by IRB	IRB typically not required by most institutions Suggest use of QI vs. research checklist and requiring human subjects protection training for all team members Suggest similar PHI safeguards (e.g. encryption, plan for destruction, limit protected health information) given comparable risks
Data collection	Baseline data cohort (may already collected) Post-intervention cohort (to be collected after IRB approval)	Collect baseline data (if not already available) Continuous data collection Consider need for sampling, stratification, frequency, and duration Develop operational definitions
Statistics	Descriptive, measures of centrality (e.g. student's t-test and chi square), multivariate tests used, sample size, power analysis	Develop metrics table to assign specific run charts and statistical process to run, statistical process control charts (SPCs) based on data type (count, proportion, or rate)
Results	Baseline characteristics table, histograms and pie charts for primary and secondary endpoints (static data)	Run and SPC charts (dynamic data) Timeline of interventions, PDSA cycles, and iterative changes
Discussion and Conclusions	Highlight key findings, compare results to previous works, describe generalizability, identify strengths and limitations	Highlight key findings, compare results to previous works, describe generalizability, identify strengths and limitations
Manuscript resources	Consolidated Standards of Reporting Trials (CONSORT), Strengthening the Reporting of Observational Studies in Epidemiology (STROBE)	Standards for Quality Improvement Reporting Excellence (SQUIRE) 2.0

PHARMACY RESIDENCY ALUMNI SPOTLIGHT: PAUL HUIRAS, PHARM.D, BCPS



Paul is originally from Southern Minnesota. He completed his undergraduate and pharmacy degrees in the Twin Cities (Minneapolis and St. Paul, Minnesota) and then moved to Boston for residency training. He spent seven years in Boston training and working before moving back to his home state of Minnesota in 2015. Paul is an oenophile, avid traveler, cook, and hunter. His professional interests include critical care, emergency medicine, trauma, and infectious diseases.

SCHOOL OF PHARMACY:

University of Minnesota, College of Pharmacy 2008

- PGY1: 2008-2009
- PGY2: 2010-2011 – Critical Care

CURRENT POSITION:

Clinical Pharmacist, PGY1 Residency
Director-Elect CentraCare Health – St. Cloud Hospital

PREVIOUS POST-RESIDENCY POSITION:

- 2009 Emergency Medicine Pharmacist, Boston Medical Center
- 2011-2015 Clinical Pharmacist, Beth Israel Deaconess Medical Center
- 2012-2015 Clinical Pharmacy Specialist-Critical Care/Surgery, Boston Medical Center

Q: WHAT IS YOUR FONDEST MEMORY FROM YOUR RESIDENCY AT BMC?

A: During my PGY1 year, it would be singing karaoke with Keith Dunn at the ASHP midyear meeting in Las Vegas. For my PGY2 year it would be trading ICU rounding stories and entertaining YouTube videos with my co-critical care resident, Jill Logan, in good old BN-05 (the shared resident offices).

Q: DESCRIBE THE IMPACT BMC PHARMACY RESIDENCY HAS HAD ON YOUR CAREER?

A: I credit the BMC residency experience with fostering my desire to stay clinically adept and always strive to advance clinical pharmacy services regardless of my practice setting. The strength of the BMC pharmacy department and complete pharmacy integration provided a great environment to witness clinical pharmacists and specialists practice at the top of their license. When you are given the chance to practice at this level in your residency, it drives you to be at your best. Once you have practiced in that environment and experienced the impact you can have, you push yourself and others to strive for continued advancement.

Q: WHAT IS YOUR CURRENT ROLE LIKE? ANY BIG PROJECTS YOU'RE WORKING ON?

A: I currently work at a 489-bed regional hospital that services central Minnesota. I rotate between covering the intensive care units and emergency medicine department as a dedicated decentralized pharmacist providing clinical services. I feel fortunate to be in this role and am able to use my previous training and work experience to affect patient care in both of these unique practice settings. It is a good mix for me. I am also very fortunate to be responsible for developing a new PGY1 Inpatient Pharmacy Residency. We plan to have our first residency class in July 2017. Thus far it has been a fun challenge adapting our department's vision for the residency program to our institution's practice environment.

Q: WHAT ADVICE WOULD GIVE TO A NEW BMC PHARMACY RESIDENT?

A: Residency is a journey. Do not expect yourself to know it all and be prepared to encounter obstacles that you did not anticipate. Don't be afraid to test your limits, you will be surprised what you can accomplish. Don't be afraid to ask for help when you need it, you might be surprised how many people are pulling for you. Keep your mind open to all the learning opportunities around you because residency is a journey and, like many in life, it will pass by way too fast.

Q: IF YOU HAD A STUDENT INTERESTED IN THE BMC RESIDENCY PROGRAM WHAT WOULD YOU SAY TO THEM?

A: BMC provides a great learning and teaching environment, flexible rotations, top-notch preceptors, plenty of PGY2 opportunities, and the benefit of being part of a diverse and large residency class. I would tell them that the program is well-established, and therefore, fairly structured. Because of this, they will get a lot out of the experience, but also a lot will be expected of them.

Q: IF YOU HAD TO PICK THREE DRUGS TO BRING WITH YOU TO A DESERTED TROPICAL ISLAND (WITHOUT ZIKA VIRUS, WE PROMISE) WHAT WOULD YOU BRING?

A: I have to channel my inner Dwight Schrute to answer this question. Okay, 1: Levofloxacin. It is a great all-purpose antibiotic. I will be consuming uncooked seafood, because it would be a shame to be on a deserted tropical island and not eat sushi every day. Additionally, I may have cuts or scrapes exposed to seawater when spearing fish for dinner. Both of which will increase my chances of vibriosis and prompting the need to have a good supply of levofloxacin. 2: Ondansetron. It is great for nausea especially the kind you get from a nagging hangover that I will inevitably achieve after making homemade wine and/or moonshine to pass the time on the island. 3: Tranexamic acid. In case I suffer injury while hunting wild boar or defending my territory in the event that the island is not so deserted after all.

Q: ANY SPECIAL COMMENTS/SHOUT OUTS TO YOUR PAST CO-RESIDENTS?

A: I would like to give a shout out to the residency class of 2009—I miss heading to Chinatown with everyone and trying foods I didn't know existed. I would like to give a shout out to the residency class of 2011—I miss hanging out with everyone on Jill Logan's spectacular rooftop deck and taking in that beautiful Boston skyline. I hope all of you are well!

2015-2016

REST EVENTS



RESIDENCY ACTIVITIES

While being a pharmacy resident is hard work, we also like to have a lot of fun. In 2014 we created the Resident Emotional Support Team (REST) to get both residents and preceptors exploring the city and getting to know each other outside of work. Every year we do our annual Meet the Residents at a local bar or brewery, work on our team work during our Residency Retreat, and support our residents while they present their research at ASHP Midyear and the Eastern States Conference in Hershey, PA.

Here are a few of the other ways that we teamed up throughout the year:



SEPTEMBER 2015 American Heart Association Boston Heart Walk

Our own Cardiology Specialist, Lindsay Arnold, organized a BMC Pharmacy Team to raise money for the American Heart Association and walk 6 miles to support building healthier lives free of cardiovascular disease and stroke. Our team was appropriately called "Team Drug Eluting" and raised over \$2500 for AHA. We were the largest team of the 14 that came from BU/BMC!



NOVEMBER 2015 Pharmacy Resident Friendsgiving

The residents decided to put their cooking skills to the test and have a Friendsgiving so they could all celebrate together with all of the traditional comfort foods of home.



JANUARY 22, 2016

Tour de North End!

We explored the North End of Boston starting with pizza at the famous Regina Pizzeria, followed by cannolis at the legendary Mike's Pastry, and then laced up our skates for some indoor ice skating at Steriti Rink! Our new pediatric specialist Camilla Farrell tried to teach us how to do a triple axel triple toe loop but instead we focused on skating while not hanging onto the wall.



APRIL 29, 2016

Sky Zone Trampoline Park, Dedham

We found a quick way to burn off a lot of energy at the trampoline park. We enjoyed some preceptor vs. resident dodgeball as well as flipped and bounced around the trampoline park for an entire hour before enjoying a dinner out together at Wicked Restaurant at Legacy Place in Dedham.



JUNE 24, 2016

End of the Year Celebration, South Boston

We gathered together to celebrate another successful year of our residency program and graduated 5 PGY1 residents and 4 PGY2 residents! We acknowledged each of the residents with their superlatives as well as their certificates and enjoyed an evening of celebrations. We're happy to be done, but will miss Boston Medical Center!

RESIDENCY EXCELLENCE AWARDS

We introduced the annual pharmacy residency excellence awards to celebrate the residents and preceptor that embody the skills, drive, and spirit of the BMC residency program. The recipients of these awards are individuals who have excelled in their particular area of practice through continued dedication to our mission of serving our patients, quality improvement, and education. We congratulate the 2015-2016 Boston Medical Center Residency Excellence Award winners.



RESIDENT OF THE YEAR AWARD: RENEE HALL, PHARM.D

Dr. Renee Hall was elected as the 2015-2016 Resident of the Year because of the dedication she showed to the program, her co-residents, and her patients. Dr. Hall revitalized and progressed our recruitment process by creating social events for candidates and reorganizing the structure of interview days. She took on additional projects, including the production and refinement of our new alumni network. Her positive attitude was infectious making her a delight to work beside. She made amazing patient connections as evident in the Patient Spotlight. BMC is excited that she will be staying on as a clinical medicine pharmacist after residency.



SCHOLARSHIP PROJECT OF THE YEAR AWARD: JENNIFER EMPFIELD PHARM.D, BCPS

Dr. Jennifer Empfield was elected to receive the 2015-2016 scholarship project of the year because of her dedication to an expansive and challenging multidisciplinary project with stunning success. To see a dedicated review, please read the Project Spotlight written by her advisor and Residency Program Director Kelly Killius PharmD, BCPS. BMC is delighted that Dr. Empfield has accepted a full time position as a clinical pharmacist in the Emergency Department.



THE DANA WHITNEY PRECEPTOR OF THE YEAR AWARD: KEVIN YEH PHARM.D, BCPS

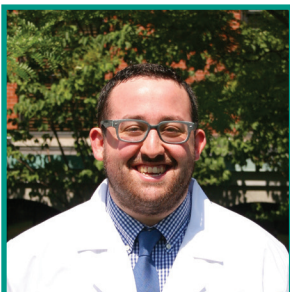
Dr. Kevin Yeh was elected by the BMC Pharmacy Residents, Class of 2015-2016 to receive the Dana Whitney Preceptor of the Year Award after displaying his continued dedication to their education and success. He routinely precepted multiple residents and offered a wide variety of sub-specialties, education opportunities, and valued guidance for each resident. Kevin also served as a project advisor and individual resident advisor while precepting the largest number of individual educational activities. Not only is Kevin highly dedicated to resident education, he also enjoys teaching the residents work life balance. He participated in multiple REST events and was a continued comic relief in the office. Kevin epitomizes the characteristics of a pharmacy resident mentor.

2016-2017 BOSTON MEDICAL CENTER PHARMACY RESIDENTS



From left to right: Kara Jones, Roshani Patolia, Jennifer Wilson, Caroline Townley, Bryan Gendron, Philip Carpiello, Megan Seraphin, Lynn Hassoun, Meaghan Paris

2016-2017 PGY1 RESIDENTS



1. **Philip Carpiello, PharmD:** Dr. Carpiello is originally from Staten Island, New York. He graduated from MCPHS University in Boston in 2015 and has spent the past year working as a clinical pharmacist at the Children's Hospital of Philadelphia. His areas of interest include oncology, ambulatory care, and pediatrics. In his spare time, he likes to play tennis, cook/bake, and explore historical sites in Boston. Interestingly, Philip is blue/green color blind and even has an app on his phone that proves it to people who don't believe him!



2. **Lynn Hassoun, PharmD:** Dr. Hassoun is from New Bedford, Massachusetts. She graduated from MCPHS University in Boston in 2016. Her areas of interest include infectious diseases and critical care. In her spare time, she likes to hike and spend time with family. Lynn was raised in Lebanon and lived there for 10 years before moving to Massachusetts!



3. **Megan Seraphin, PharmD:** Dr. Seraphin is from Rockaway, New Jersey. She graduated from Northeastern University in Boston in 2016. Her areas of interest include infectious diseases and oncology. In her spare time, she likes to travel, try new restaurants, and spend time with family and friends. You might recognize her—Megan appeared on episode of Top Chef when it filmed in Boston!



4. **Roshani Patolia, PharmD:** Dr. Patolia is from Verona, New Jersey. She graduated from the Ernest Mario School Pharmacy at Rutgers in 2016. Her areas of interest include ambulatory care, infectious diseases, and oncology. In her spare time, she likes to cook, watch TV/movies, and spend time with family and friends. The Sopranos TV show used to film scenes on the street Roshani grew up on in New Jersey!



5. Meaghan Paris, PharmD: Dr. Paris is from Derry, New Hampshire. She graduated from Western New England University in 2016. Her areas of interest include emergency medicine and critical care. In her spare time, she likes to cook, knit, and play with her dog, George. Interestingly, Dr. Paris was once an Irish Step Dancer and even went to Ireland to compete!



6. Kara Jones, PharmD: Dr. Jones is from Centerville, Ohio. She graduated from the James L. Winkle College of Pharmacy at the University of Cincinnati and completed her undergraduate degree at Purdue University. Her areas of interest include critical care and emergency medicine. In her spare time, she enjoys writing novels, hiking, and traveling. A fun fact about Kara is that she adores animals and once had 32 rabbits living in the backyard of her suburban home, a beagle named Meg, a horse five miles away, and a llama. These days, she has two cats.

2016-2017 PGY2 RESIDENTS



1. Jennifer Wilson, PharmD: Dr. Wilson is originally from Winterville, North Carolina and will be the PGY2 in Critical Care. She graduated from Campbell University in 2015 and completed her PGY1 residency this past year at Vidant Medical Center in Greenville, North Carolina. In her spare time, she likes to play disc golf, camp, and cook/bake. As a resident of North Carolina, Jennifer's childhood dream was to play for the women's basketball team of Duke University!



2. Caroline Townley, PharmD: Dr. Townley is originally from Broadview Heights, Ohio and will be the PGY2 in Oncology. She graduated from Ohio Northern University in 2015 and completed her PGY1 residency this past year at Cleveland Clinic Akron General in Akron, Ohio. In her spare time, Caroline enjoys spending time with her family and friends, playing with her puppy—Penny, baking, and shopping. A fun fact is that Caroline was a cheerleader starting in fourth grade and cheered all through pharmacy school!



3. Bryan Gendron, PharmD: Dr. Gendron is originally from Auburn, New Hampshire and is continuing the PGY2 in Emergency Medicine. Prior to completing his PGY1 at BMC, Bryan earned his Bachelor's Degree at Boston College and his PharmD from the University of North Carolina. In his spare time, Bryan enjoys traveling, cooking, watching sports, and spending time with friends and family. A fun fact about Bryan is that his original interest upon starting his PGY1 residency was ambulatory care, but he found a passion for emergency medicine!

NEW PHARMACY RESIDENCY PRECEPTORS

The 2015-2016 academic year was a great year for new additions to the pharmacy residency preceptor group. By continuing to attract diversely trained and motivated preceptors, our program has graduated more than 110 exceptional residents over 29 years. The Boston Medical Center Pharmacy Department is honored to welcome to following pharmacists as facilitators of our program.



PRACHI D. BHATT, PHARMD, BCCCP, BCPS

Clinical Specialist, Critical Care

Education: Doctor of Pharmacy, University of the Sciences in Philadelphia, Philadelphia, PA (2010)

Residencies: PGY1, Temple University Health System (2011); PGY2, Critical Care, Boston Medical Center (2015)

Professional Membership: Society of Critical Care Medicine, ACCP, MSHP

Practice/Research Interests: ICU sedation, delirium, antibiotic stewardship, pharmacokinetics and pharmacokinetics in critically ill patients

Rotations Offered: Medical ICU

Dr. Bhatt provides clinical pharmacy services for critically ill patients in the medical intensive care unit. She precepts students from Northeastern University, PGY1 residents, and PGY2 critical care and emergency medicine residents. Her research interests focus on improving the quality of care and medication use in critically ill patients.



KARRINE BRADE, PHARMD, BCPS

Clinical Specialist, Infectious Diseases

Director, PGY2 Infectious Diseases Pharmacy Residency Program

Education: Doctor of Pharmacy, University of Colorado School of Pharmacy (2013)

Residencies: PGY1, Memorial Hospital—University of Colorado Health (2014); PGY2, Infectious Diseases, Detroit Medical Center (2015)

Professional Memberships: SIDP, ACCP, ASHP, MSHP

Practice/Research Interest: Antimicrobial stewardship, pharmacokinetics and pharmacokinetics of antimicrobials, antimicrobial resistance

Rotations Offered: ID Consult, antimicrobial stewardship

Dr. Brade precepts PGY1 and PGY2 residents, along with students from Northeastern University, on their ID rotation which includes experiences in both ID consult and antimicrobial stewardship (AMS). She works as part of the Antimicrobial Stewardship Team to optimize the use of antimicrobials across the entire hospital in order to improve patient care outcomes, while minimizing toxicity and the emergence of resistance.



CAMILLA FARRELL, PHARM.D, BCPS, BCPPS

Clinical Specialist, Pediatrics

Education: Doctor of Pharmacy, Northeastern University (2010)

Residency: PGY1, Memorial Hermann Southwest Hospital (2011)

Memberships: ACCP, PPAG, MSHP

Practice/Research Interests: Neonatal ICU, Neonatal abstinence syndrome, parenteral nutrition

Rotations Offered: General Pediatrics, Neonatal ICU

Dr. Farrell provides clinical pharmacy services for critically ill patients in the neonatal ICU, pediatric ICU, general pediatrics, labor and delivery, and newborn nursery. She enjoys working with residents and students to gain confidence with managing this high risk and vulnerable population.



MICHELLE MANCUSO, PHARM.D, BCPS

Clinical Medicine Pharmacist

Education: Doctor of Pharmacy, University at Buffalo (2013)

Residencies: PGY1, Boston Medical Center (2014)

Professional Memberships: MSHP, ACCP

Practice/Research Interest: Internal Medicine, Transitions of Care

Rotations Offered: Internal Medicine

Dr. Mancuso provides clinical services to patients on the internal medicine services. She precepts PGY1 residents in their core internal medicine rotation as well as inpatient geriatrics and renal rotations, along with students from Northeastern University.



JASON MORDINO, PHARM.D, BCCCP

Clinical Specialist, Critical Care – Trauma Surgical ICU

Director, PGY1 Residency Program

Education: Doctor of Pharmacy, Massachusetts College of Pharmacy (2011)

Residencies: PGY1, Beth Israel Deaconess Medical Center (2012);

PGY2, Critical Care, Boston Medical Center (2013)

Professional Memberships: Society of Critical Care Medicine, ASHP, MSHP

Practice/Research Interest: Post traumatic injury, acute care surgery, parenteral nutrition, quality improvement and resource utilization.

Rotations Offered: Trauma/Surgical Critical Care (Menino SICU) for both PGY-1 and PGY-2 residents and a Nutrition rotation for PGY-2 residents.

Dr. Mordino provides clinical pharmacy services for critically ill patients after traumatic injury in addition to post-surgical care for neurosurgical, orthopedic and acute care surgery patients. He also works with the nutrition committee and dietary team to provide optimal parenteral nutrition in a safe and effective manner for all BMC patients. Dr. Mordino is also an avid educator and supporter of pharmacy residency. He is currently an active member of the MSHP Residency Committee.



KATELYN O'BRIEN, PHARM.D, BCPS

Clinical Pharmacist—Ambulatory Care and Anticoagulation

Education: Doctor of Pharmacy, University of Connecticut (2014)

Residency: PGY1 VA Boston Healthcare System (2015)

Professional Memberships: ASHP, NEIAP, Phi Delta Chi, MSHP

Practice/Research Interest: chronic disease state management, transitions of care, anticoagulation

Rotations Offered: Primary Care, Anticoagulation

Dr. O'Brien provides clinical pharmacy services in both the anticoagulation and adult internal medicine clinics. Her interests in caring for underserved patient populations began as a student at Uconn where she was an interprofessional team member in the Urban Service Track. Outside of patient care interests, she enjoys precepting and working with students/residents. She oversees Operation Awesome which focuses on improving the student experience at BMC.



HOPE SERAFIN, PHARM.D, BCPS

Clinical Medicine Pharmacist

Education: Doctor of Pharmacy, University of North Carolina—Chapel Hill (2014)

Residencies: PGY1, Boston Medical Center (2015)

Practice/Research Interest: Internal Medicine, Patient safety, Transitions of care

Rotations Offered: Internal Medicine

Dr. Serafin enjoys providing clinical pharmacy services to the diverse patients on the internal medicine service, internal medicine subspecialties, and in the emergency department. She precepts both PGY1 residents and students from Northeastern University in internal medicine.



ALISON STEBBINGS, PHARM.D, BCOP

Clinical Specialist, Hematology/Oncology

Education: Doctor of Pharmacy, Northeastern University (2010)

Residencies: PGY1, Tufts Medical Center (2011); PGY2 Hematology/Oncology, University of Pittsburgh Medical Center (2012)

Professional Membership: Hematology Oncology Pharmacy Association (HOPA), MSHP

Practice/Research Interest: Supportive care of cancer patients, MASCC criteria in febrile neutropenia, post discharge transitions of care

Rotations Offered: Inpatient Hematology/Oncology

Dr. Stebbings provides clinical pharmacy services to patients admitted to the hospital with cancer related complications. She enjoys working with residents and students interested in learning more about hematology/oncology and the needs of this unique patient population.



ALYSSA STERLING, PHARM.D, BCPS

Clinical Medicine Pharmacist

Education: Doctor of Pharmacy, University of Rhode Island (2012)

Residency: PGY1 VA Boston Healthcare System (2013)

Memberships: MSHP

Practice/Research Interest: Adult medicine, transitions of care, pharmacy education & training (residents and students), pharmacokinetics

Rotations Offered: Internal Medicine, Inpatient Geriatrics

Dr. Sterling provides clinical pharmacy services for the adult internal medicine, geriatrics, renal, and hospitalist services. She offers rotations in internal medicine to PGY1 residents and Northeastern University pharmacy students. She is also involved in hospital-wide initiatives to provide pharmacy services to those patients at highest risk of readmission.



MELISSA BACHMAN, PHARM.D, BCPS

Clinical Medicine Pharmacist

Education: Doctor of Pharmacy, University of the Sciences in Philadelphia (2009)

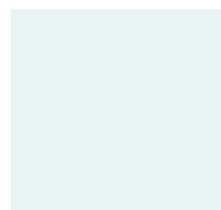
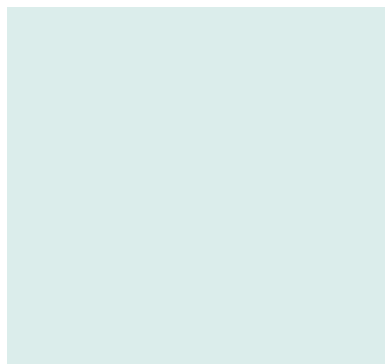
Residency: PGY1 Hahnemann University Hospital, Philadelphia, PA (2010)

Memberships: MSHP

Practice/Research Interest: Adult internal medicine, transitions of care

Rotations Offered: Inpatient Internal Medicine, Inpatient Renal Subspecialty

Dr. Bachman provides clinical pharmacy services to patients admitted to the inpatient internal medicine, infectious diseases, geriatric, and renal services. Dr. Bachman also serves as a preceptor for Northeastern University students.



LINDSAY M. ARNOLD

- Yager S, Arnold LM, Liu V. Impact of pharmacist transitional care management telephone calls on hospital readmission rates within a cardiology service. American College of Clinical Pharmacy Global Conference on Clinical Pharmacy. October 2016.
- Roberts V, Bhatt P, Arnold LM, Burns JD, Cervantes-Arslanian AM. The effect of a neurology-specific heparin protocol with narrowed goal PTT range on rate of hemorrhagic and thromboembolic events in acute ischemic stroke: A pre- and post-protocol implementation study. Neurocritical Care Society Annual Meeting. September 2016.
- Vemula A, Young K, Patchett N, Lee J, Jung Y, Arnold LM, Moses J, Eberhardt R. Improving compliance with VTE prophylaxis assessment completion. Institute for Healthcare Improvement 27th Annual National Forum. December 2015.
- Vincent WR, Huiras P, Arnold LM, Le J, Eagan J, Lyons P et al. Implementation of a nursing-driven sliding scale electrolyte protocol in five adult intensive care units. Institute for Healthcare Improvement 27th Annual National Forum. December 2015.
- Boo E, Sane R, Arnold LM. Anticoagulation prescribing practices in patients with venous thromboembolism and malignancy. American College of Clinical Pharmacy Global Conference on Clinical Pharmacy. October 2015.
- Bhatt P, Arnold LM. Evaluation of the effect of a neurology specific heparin protocol on time to goal PTT range: A pre-and post-protocol implementation study. American College of Clinical Pharmacy Global Conference on Clinical Pharmacy. October 2015.
- Rahman F, Weinberg J, Bernard S, Arnold LM. Intravenous antihypertensives used for non-urgent hypertension in inpatients. American Heart Association Council on Hypertension Scientific Sessions. September 2015.
- Arnold LM, Mahesri M, McDonnell ME, Alexanian SM. Glycemic outcomes three years after implementation of a perioperative glycemic control algorithm in an academic institution. Endocrine Practice. In press.
- Lee SY, Askin G, McDonnell ME, Arnold LM, Alexanian SM. Hypoglycemia rates after restriction of high dose glargine in hospitalized patients. Endocrine Practice. 2016. DOI:10.4158/EP161288.OR
- Arnold LM, Pande AN. Pharmacologics: Systemic and Transcatheter Therapies. In Kim D, Patel N, Orron D, editors. Vascular Imaging and Endovascular Intervention. In press.

KARRINE BRADE, PHARMD, BCPS

- Brade KD, Rybak JM, Rybak MJ. Oritavancin: A New Lipoglycopeptide Antibiotic in the Treatment of Gram-Positive Infections Infect Dis Ther. 2016 Mar;5(1):1-15
- Roberts KD, Sulaiman RM, Rybak MJ. Dalbavancin and Oritavancin: An Innovative Approach to the Treatment of Gram-Positive Infections. Pharmacotherapy. 2015 Oct;35(10):935-48
- Invited to present at National Ascension health Therapeutic Affinity Group meeting, Austin, TX February 2016

JUSTINE DICKSON, PHARM.D, BCPS

- Dickson J, Vincent III W, Wu L, Thurman J, Francis J, Nuhn M. Quality improvement initiative to provide comprehensive pharmacy services to kidney transplant patients at a small transplant center. *Am J Transplant*. 2016;16 (suppl 3):759.

KEVIN HORBOWICZ, PHARM.D, BCPS

- Invited to present at the New England Critical Care Symposium: An Introduction to the Science of Improvement: Driving Change in the ICU, March 2016
- Invited presentation at the Massachusetts Society of Health System Pharmacists: The Science of Improvement: Leading Change with Data, April 2016

KELLY KILLIUS, PHARM.D, BCPS

- Presenter, ACCP Global Conference, Emergency Medicine PRN session, October 2015

JASON MORDINO PHARM.D, BCCCP

- Invited to present at National Association of Clinical Nurse Specialists: One Dose Doesn't Fit All: Pharmacokinetics Impact on Patient Care, Philadelphia, PA, March 2016

ALYSSA STERLING, PHARM.D, BCPS

- Presenter at MSHP Preceptor Pearls, July 2016

WILLIAM R. VINCENT III, PHARM.D, BCCCP

- Storyboard Presentation at the Institute for Healthcare Improvement National Forum. Orlando, FL.
 - PS50: Implementation of a Nursing Driven Sliding Scale Electrolyte Protocol in Five Adult Intensive Care Units
- Invited presentation at the New England Critical Care Symposium. Pro-con debate: The optimal fluid to resuscitate critically ill patients, March 2016
- Recipient, 2016 Massachusetts Society of Health System Pharmacists Practitioner Excellence Award, April 2016
- Recipient, 2016 Boston Medical Center Be Exceptional Award, June 2016
- Beliard R, Muzykovsky K, Vincent III W, Shah B, Davanos E. Perceptions, barriers, and knowledge of inpatient glycemic control: A survey of health care workers. *J Pharm Pract* 2016;29(4):348-54.

BOSTON
MEDICAL

The logo for Boston Medical Center features the word "BOSTON" in a large, white, serif font, with "MEDICAL" in a smaller, white, serif font directly below it. To the right of the text is a white circular emblem. The word "CENTER" is written in a white, sans-serif font, arched over the top half of the circle. The circle itself is partially obscured by the text "BOSTON" and "MEDICAL".

CENTER