

Lee Health Pharmacy Services Advancing Care 2021



PHARMACY MISSION

Optimizing
Patient Outcomes
Through
Interdisciplinary
Medication
Management



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Message from System Director of Pharmacy

Guiding Principles for Pharmacy Leadership at Lee Health

- Creating an environment for individual excellence and team success in Optimizing patient outcomes through interdisciplinary medication management.
- Advance, expand and promote Lee Health Pharmacy Services in which pharmacy is recognized as a leader in the State of Florida, advancing practice and care to patients where continuity of care from the patient's perspective is expected and delivered.
- Contribute to providing an environment and culture for personal and professional growth for pharmacists and pharmacy technicians through encouragement, continuous professional development, recognition and utilization of the skills, talents and strengths of the individual and fostering teamwork to enhance success.
- Develop and expand pharmacy training programs for pharmacy residents, pharmacy students and interns, and pharmacy technician students demonstrating professionalism, competency and excellence while developing highly trained pharmacy personnel for Southwest Florida, Florida and beyond.



**John A. Armitstead, M.S.,
R.Ph., FASHP**

I am pleased to share the Lee Health Pharmacy Services Advancing Care 2021. Our pharmacy team members are committed to the Lee Health Mission and Vision and deliver on being Caring People, Inspiring Health.

Our pharmacists and pharmacy technicians are professionals dedicated to Optimizing Patient Outcomes Through Interdisciplinary Medication Management.

Our acute care operations have served as strong foundation to build our professional services to include a comprehensive inpatient, ambulatory pharmacy, long term care and home care services to patients that reach into the community to address our commitment to our patients.

New this year have been some exciting developments including extension of care delivery services to our own Lee Health Skilled Nursing Facilities, the introduction of Lee Health Specialty Pharmacy, the addition of Lee Health Home Infusion (Access Infusion) and the substantial construction project at the renewed Gulf Coast Medical Center.

As we continue to battle COVID-19 we are thankful for the health of our health care team members and truly understand the aspect that we are battling disease and fighting for the care of our patients. Thank you for the unique contributions this past year of our pharmacy team members, health care team members and our community.

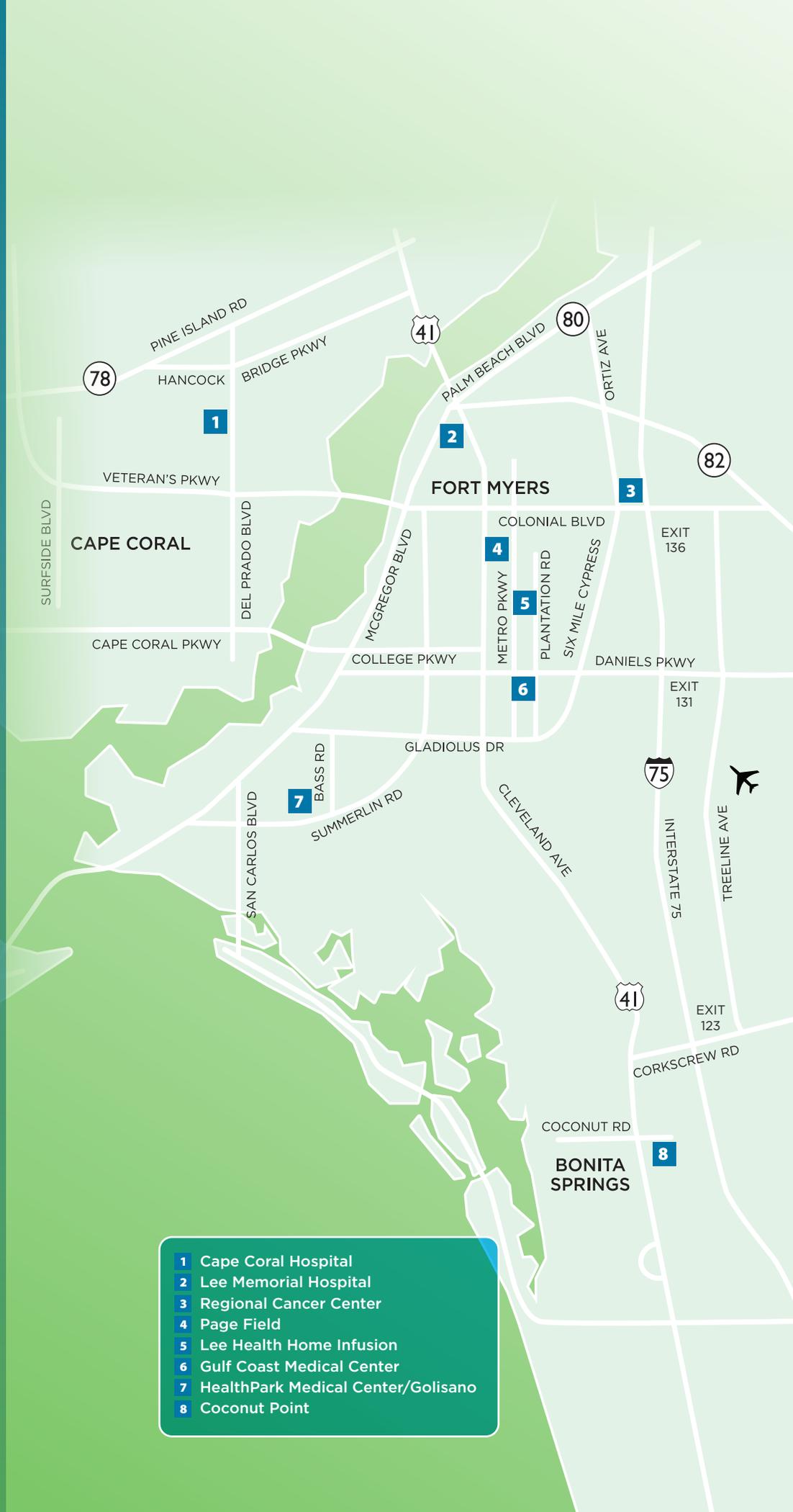
A handwritten signature in blue ink that reads "John A. Armitstead".

John A. Armitstead, M.S., R.Ph., FASHP
System Director of Pharmacy

SERVICE OVERVIEW

Lee Health comprises a multitude of services across the Fort Myers and Cape Coral area in Florida that serve 1800 beds with approximately 300 pharmacy staff members. The health system includes four adult acute care facilities, all of which contain a Lee Pharmacy (community retail pharmacy), one pediatric acute care facility, a Regional Cancer Center, an Outpatient Infusion Center, two primary care clinics, an Employee Health Plan Pharmacy, a Specialty Pharmacy, Skilled Nursing Facility and Units, a Home Infusion Service, and two clinic-based retail pharmacies.

In the acute care setting, decentralized pharmacists provide comprehensive clinical services to the emergency department, intensive care units, and general medical/surgical floors. Decentralized services include medication reconciliation, antimicrobial stewardship, anticoagulation services, pharmacokinetic dosing, patient education, and 24/7 emergency code response. In the outpatient setting, pharmacists are embedded within clinic practices and act as a resource to providers and nursing, provide patient education, and facilitate the transition of care process in order to ensure a seamless transition to home.



- 1 Cape Coral Hospital
- 2 Lee Memorial Hospital
- 3 Regional Cancer Center
- 4 Page Field
- 5 Lee Health Home Infusion
- 6 Gulf Coast Medical Center
- 7 HealthPark Medical Center/Golisano
- 8 Coconut Point



Cape Coral Hospital (CCH) is a 291-bed adult acute care facility located on the west side of the Caloosahatchee River in Lee County, Florida. The hospital was established in 1977 as an independent entity to serve the growing city of Cape Coral and subsequently joined the Lee Health System in 1996.

As it is the only hospital in the surrounding area, CCH serves as the primary source for acute care by providing obstetrics/gynecology, general medical/surgery, neurosurgery, orthopedics, cardiac, pulmonary medicine, neurology, intensive care, emergency medicine, endoscopy, and general/vascular surgery services to the Cape Coral community.

CCH is the first community hospital in Florida to receive the Governor's Sterling Award, a prestigious honor that recognizes excellence in leadership, strategic planning, operations, and overall performance. In addition, CCH earned a Leapfrog Hospital Safety Grade rating of "A" in 2020. CCH is also among Healthgrades Top 100 Best Hospitals in America as of 2021.

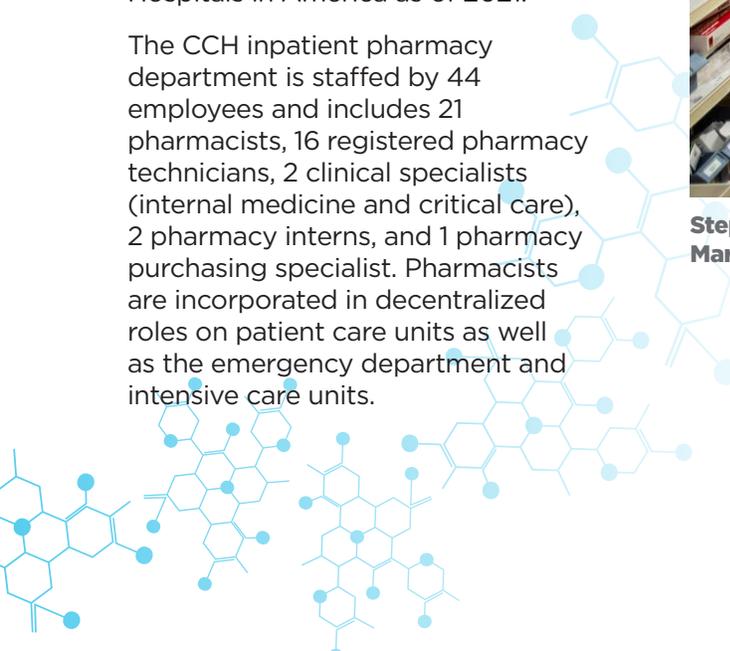
The CCH inpatient pharmacy department is staffed by 44 employees and includes 21 pharmacists, 16 registered pharmacy technicians, 2 clinical specialists (internal medicine and critical care), 2 pharmacy interns, and 1 pharmacy purchasing specialist. Pharmacists are incorporated in decentralized roles on patient care units as well as the emergency department and intensive care units.



Cape Coral Hospital



Stephen M. Kessinger RPh, MS, MBA, CGP (Pharmacy Director) & Mariamo Oyebanjo, Pharm.D., BCPS (Pharmacy Manager)



Golisano Children's Hospital of Southwest Florida (GCHSWF) is a standalone, state-of-the-art facility that opened in 2017 on a mission to deliver vital and lifesaving care for children and their families throughout the Southwest Florida region.

GCHSWF provides specialized pharmaceutical care to neonatal intensive care (NICU), cardiac, cystic fibrosis, neurology, and oncology patients. The NICU is a Level III facility that has been designated a Regional Perinatal Intensive Care Center by the Florida Department of Children's Medical Services, one of only 11 such centers in the state and the only one in Southwest Florida region. In addition, the State of Florida Department of Children's Medical Services designated the Hematology/Oncology program as one of just nine centers in the state for infants and children diagnosed with cancer and blood disorders.

GCHSWF is one of 170 hospitals nationwide that belong to Children's Miracle Network. The hospital offers various community outreach programs and conference to support its Kid Minds Matter mission. In addition, GCHSWF is part of solutions for patient safety network (SPS) and affiliates with Johns Hopkins All Children's Hospital to Advance Pediatric Care in Southwest Florida. Due to the need of local specialized pediatric providers, GCHSWF continues to grow by the addition of specialized services in cardiology, neurology, and ultimately a designation a pediatric trauma center.



Golisano Children's Hospital of Southwest Florida



From left to right: Ingrid Kelley, PharmD (Pharmacy Manager), Diana Elnemr, PharmD, CPh, DPLA (Pharmacy Director), and Melanie Levy, RPhT, CPhT (Pharmacy Technician Supervisor)

The pharmacy department serves 133 beds, two oncology clinics, and a cystic fibrosis clinic with a team of 18 pediatric trained pharmacists and 15 pharmacy technicians. Pharmacists are integrated within the patient care units and cystic fibrosis clinic to provide interdisciplinary care, and act as resources for pediatric consultations to the adult acute care hospitals. GCHSWF supports transitions of care services through close collaboration with Lee Pharmacy at Health Park Medical Center by coordinating customized pediatric formulations as patients transition from the inpatient or clinic setting to home. In addition, GCHSWF is committed to providing excellent training experiences through the PGY-2 Pediatric Residency Program.



Gulf Coast Medical Center (GCMC), established in 2009, is a 356-bed facility that is currently undergoing extensive expansion of services. Expected growth by Fall 2021 includes 536 acute care beds, 88 intensive care unit beds, an 84-bed emergency department, and a broad range of outpatient diagnostic and treatment departments.

As community needs continue to grow, GCMC offers a variety of services including: interventional cardiology, orthopedics, general and vascular surgery, colorectal surgery, oncology, dialysis, neurology, and neuro-surgery. In addition, GCMC supports the community as the only Comprehensive Stroke Center in Lee County with an active Neuro Interventional Lab.

Robust service as a Comprehensive Stroke Center has earned GCMC the American Heart Association/American Stroke Association “Get With The Guidelines” Gold Plus Stroke Center designation. GCMC also achieved a Leapfrog Hospital Safety Grade rating of “A” in 2020.

Pharmacy services are provided by an outstanding team of 26 pharmacists and 24 pharmacy technicians and support personnel. These dedicated individuals

support safe and effective medication management for our inpatient, outpatient, diagnostic care areas, and adjacent 75-bed skilled nursing facility.

Pharmacy team members are an integral part of the interdisciplinary team in patient care units. Many of our staff pharmacists have continued to further their growth by attaining board certification. An additional innovation has been the expansion of pharmacy technician workflow to support a decentralized model, as their presence in patient care units and the emergency department has become fundamental to patient care.

Gulf Coast Medical Center



From left to right: Farah Zuberi, MS, RPh, BCPS, BCSCP (Pharmacy Manager); Peter Duggan, RPh, CPh, DPLA (Pharmacy Director); Jennifer Moenander, RPhT, CPhT (Pharmacy Technician Supervisor)



Located in the heart of South Fort Myers, HealthPark Medical Center (HPMC) has been serving the community with a modern approach to health and wellness since 1991. HPMC is a 460-bed facility that provides a wide range of inpatient and outpatient services.

HPMC services include cardiology, obstetrics and gynecology, rehabilitation, radiology, a full-service 24/7 emergency care center and a 112-bed HealthPark Care and Rehabilitation Center facility. Since opening, HPMC has continued to expand in order to meet the needs of the surrounding community. HealthPark Surgery Services' growing volumes include a full-spectrum of cardiothoracic, urologic, pediatric (including general, orthopedic, and oncology), gynecological, and general/vascular specialties.

The state-of-the-art facility within the surgery department allows for minimally invasive vascular and specialized heart procedures such as Endovascular Transcatheter Aortic Valve Replacement (TAVR). This is in addition to other robotic procedures that cover several specialties (cardiothoracic, OB/GYN, urology, and general) which are offered at HPMC.



HealthPark Medical Center

HPMC is the recipient of several recognitions, such as being named the Top 50 Cardiovascular Hospital in the nation by IBM Watson Health. The facility's cardiac rehabilitation program is certified by the American Association of Cardiovascular and Pulmonary Rehabilitation. In addition, HPMC is one of 11 hospitals in Florida certified as a Regional Perinatal Intensive Care Center. HPMC services include high-risk and low-risk obstetrical care and is the 3rd busiest delivery facility in the state of Florida. HPMC earned an A grade for patient safety by The Leapfrog Group, a leading healthcare nonprofit organization.

HPMC pharmacy department consists of 63 caregivers, including 31 pharmacists and 32 pharmacy technicians. The pharmacist team provide services ranging from inpatient decentralized pharmacy services, medication provision to our adjacent Skilled Nursing Facility with over 100 beds, as well as pharmacist active participation in the outpatient support team in the heart failure management clinic, rapid diuresis clinic, and post cardiac catheterization care management.



From left to right: Yanela Lozano, PharmD, DPLA, MBA (Pharmacy Director); Mohit Patel, PharmD, CPh (Pharmacy Manager) and Jullian Parnell, RPhT, CPhT (Pharmacy Technician Supervisor)





Lee Memorial Hospital (LMH) was established in 1916 with ten beds and repurposed lumber to serve the members of Lee County. As of 2021, LMH has grown from its humble beginnings to a Level II trauma Center that encompasses 362 beds, those of which include a Rehabilitation Hospital (60 beds), a Skilled Nursing Unit (18 beds), and Complex Care Center (12 chairs) that are located within the hospital campus. With exceptional trauma-trained staff, the response power of emergency medicine services provides 24/7 life-saving trauma care to the residential communities surrounding Lee County. LMH continues to provide remarkable patient care in Fort Myers for more than 100 years with the expansion of behavioral health, general surgery, imaging, infectious disease, family medicine, and vascular surgery.

In 2020, LMH earned an A grade for patient safety, the highest patient safety rank, by The Leapfrog Group, a leading health care nonprofit organization committed to driving quality, safety, and transparency in U.S. health systems. LMH is also a designated Chest Pain Center, fully accredited by the Society of Chest Pain Centers. In addition, the Agency of Health Care Administration designated LMH as a Certified Primary Stroke Center.



Lee Memorial Hospital

The Department of Pharmacy at Lee Memorial Hospital offers 24/7 interdisciplinary patient care services by a professional staff of 27 pharmacists, 27 pharmacy technicians, and 2 pharmacy interns. Pharmacists are integrated in internal medicine floors, emergency medicine department, medical/surgical intensive care units, and an outpatient infusion center known as Complex Care Center.

LMH serves as the primary training site for the PGY-1 Pharmacy Residency and PGY-2 Critical Care Residency Programs. The inpatient pharmacy also supports ambulatory patient care services by coordinating drug distribution and supply of over 100 Lee Physician Group outpatient clinics.

From Left to right: Carla Reid, RPhT, CPhT (Pharmacy Technician Supervisor), Nina Farhoudi, PharmD, CPh (Pharmacy Director) and Farima Fakheri Raof, PharmD, BCPS, CPh, DPLA, 340B ACE (Pharmacy Manager)

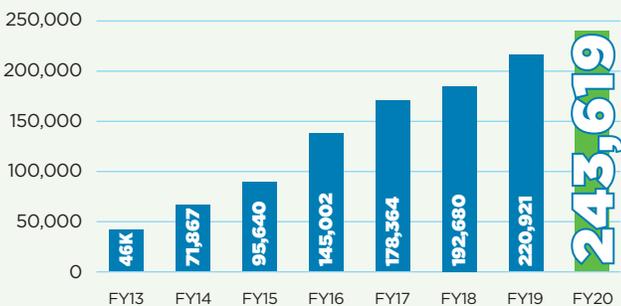




Lee Pharmacy

Lee Pharmacy, established in 2012, began as two outpatient community pharmacies with 8 employees and evolved into 6 pharmacies with 46 team members. Over the span of 8 years, Lee Pharmacy has experienced a steady growth in prescription volume and pharmacy services to the Lee Health and Fort Myers community. In 2020 alone, Lee Pharmacies dispensed over 240,000 prescriptions, increasing their prescription volume by over 10% from the previous year.

Prescription Volume



There are four Lee Pharmacies strategically embedded within the adult acute care hospitals at Lee Memorial Hospital, HealthPark Medical Center, Gulf Coast Medical Center, and Cape Coral Hospital. These locations focus on optimizing transitions of care for discharge patients from the hospitals and emergency departments, as well as dispensing outpatient prescriptions to employees and their dependents. By incorporating outpatient pharmacies into the acute care setting, Lee Health supports patients further along in the continuum of care with pharmacy ambulatory services such as medication education, prescription dispensing, medication compounding, and immunizations.

The acute care Lee Pharmacy locations offer a Prescription Bedside Delivery Program, known as Meds to Beds, which delivers prescriptions directly to a patient's room prior to discharge. Meds to Beds provides the opportunity to proactively identify and resolve barriers in discharge medications. In addition, the program allows patients to start therapy immediately upon discharge and improves patient satisfaction by preventing an additional trip to a community pharmacy before going home.

The Lee Pharmacy at Page Field is situated within a pediatric primary care office, adjacent to a convenient care and multiple specialty offices, allowing for integrated pharmacy services during patients' office visit. The pharmacy team collaborates with providers to ensure patients and caregivers leave their visit with their medication in hand.

In 2020, Lee Pharmacy was excited to deploy a PGY-1 Community Based Residency Program. A considerable number of our ambulatory pharmacists at Lee Pharmacy have become



Anson Phetteplace, PharmD, CPh, DPLA (Pharmacy Director) and Michelle Sadler, PharmD, BCACP, CPh (Pharmacy Manager)

residency preceptors this year and have been working directly with our two pharmacy residents to optimize their community pharmacy practice and residency experience. Our residents are immersed in direct patient care providing counseling, immunizations, and removing barriers to transitions of care while simultaneously learning through interdisciplinary healthcare experiences.

The Lee Pharmacy located at Lee Health Coconut Point is a unique hybrid of both inpatient and outpatient functions to support an emergency department, surgery center, and primary care offices. The outpatient pharmacy is open for prescription dispensing Monday through Friday. However, the emergency department provides 24/7 pharmacist services who is cross trained in both emergency medicine and prescription dispensing. The combined services allow patients to get prescriptions filled anytime they are discharged from the emergency department, day or night.

COVID-19 presented several obstacles and challenges to normal practice this past year. However, the Lee Pharmacy team successfully adapted to maintain pharmacy services for Lee Health patients. The Lee Pharmacy team looks forward to 2021 and new opportunities to optimize patient care through interdisciplinary medication management.



Health Plan Pharmacy

The Lee Health Plan Pharmacy opened in 2004 as a mail order pharmacy option for the health system's self-insured health plan beneficiaries. The pharmacy has grown from dispensing 100 prescriptions per week to our current volume of over 1,600 prescriptions weekly, amounting to over 85,000 prescriptions annually. This volume accounts for over 50% of all pharmacy claims for the health plan's 21,000 covered lives.

In addition to safely and efficiently filling maintenance prescriptions for our health plan beneficiaries, the pharmacy team assists health plan members with formulary concerns, prior authorizations, and claims processing at network pharmacies. The staff consisting of 6 pharmacists and 6 technicians at the Lee Health Plan Pharmacy provides personalized and superior customer service to our colleagues and their covered dependents. In addition, HPP is committed to the education and training of future pharmacists by providing a Managed Care learning experience for PGY-1 Community-Based pharmacy residents and PGY-2 Health-System Pharmacy Administration and Leadership residents.

Synergistic efforts between the employee health plan design committee and Lee Health Plan Pharmacy have resulted in year-over-year cost containment and member satisfaction.

- **The per member per month (PMPM) prescription costs on the employee health plan are nearly 12% below the national average, yielding an annual savings of \$2.9 million**
- **The 2018 implementation of Epic Willow Ambulatory has allowed for improved patient care with access to patients' integrated electronic medical records**
- **The turnaround time for prescriptions has been reduced from a high of 7 days to our current rate of 3 days**



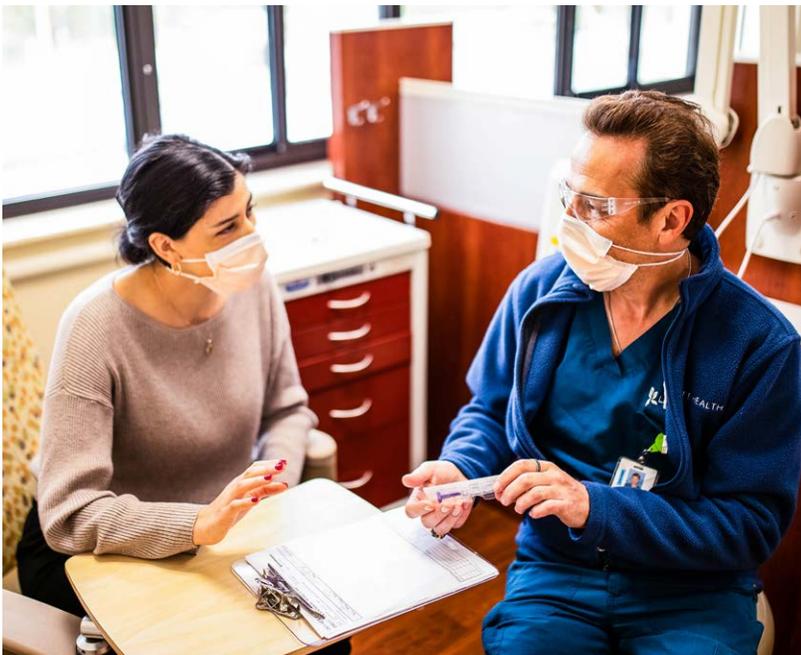
**Diane Bush, RPh, CPh
(Pharmacy Manager)**

Infusion Centers

Complex Care Center

Complex Care Center (CCC) is a hospital-based outpatient clinic located in the Medical Office Building adjacent to Lee Memorial Hospital. The CCC clinic provides a wide range of outpatient services including transition of care for post-hospital discharged patients at high risk for readmission, wound care management, pharmacist-run warfarin clinic, and outpatient infusions.

Pharmacy services is provided from CCC satellite pharmacy located within the clinic, staffed with pharmacy technicians and ambulatory care pharmacists. Pharmacists collaborate with providers in development and delivery of patient treatment plans, conduct patient visits for warfarin management, and dispense intravenous medication infusions. The CCC clinic is at forefront of offering innovative patient care options including rapid diuresis for congestive heart failure and investigational COVID-19 antibody infusions.



Michael Koleff (Director) and Kathleen Dolan, RPh (Pharmacy Manager)

Lee Health Home Infusion

Since 1995 Lee Health Home Infusion has provided medications, treatment management, nursing resources, and insurance support to patients requiring home infusion and nutrition support therapies. As the practice of home infusion therapy has become prominent due to its cost effective benefits

Lee Health Home Infusion utilizes a 15-member team, which includes three pharmacists, two pharmacy technicians, three registered nurses, two dietitians, and distribution and billing personnel dedicated to working together to provide compassionate care and personalized service to Southwest Florida residents. The team routinely collaborates with other members of the Lee Health continuum of care and external home care entities to provide the best patient experience possible in the comfort of the patient's home. Lee Health Home Infusion is one of the leading suppliers of nutrition support in Southwest Florida and services both the population's geriatric and pediatric components. Lee Health Home Infusion is accredited by the Community Health Accreditation Partner (CHAP) and has CMS certification to deliver Medicare and Medicaid reimbursed therapies in a home care setting.

Regional Cancer Center

Lee Health Oncology services started as Lee Cancer Care in 1998 and evolved into the Regional Cancer Center (RCC) in 2008. RCC provides a wide variety of infusion therapies for adult outpatients, and until recently, also prepared adult chemotherapy for inpatients at all Lee Health facilities. Infusions include chemotherapy, immunotherapy, monoclonal antibodies, as well as treatments for rheumatology, gastrointestinal disease, and immunodeficiency.

With over 21,000 infusion preparations per year, the pharmacy staff of 13, including 3 Board Certified Oncology Pharmacists (BCOP), provide comprehensive, collaborative pharmaceutical services to adult oncology and other (disease state) patients. The program has expanded to add 4 hematologists/oncologists, with continuous growth planned for the next year. Pharmacists provide clinical services to providers and patients. The oncology program has also developed a collaborative chemotherapy stewardship committee to oversee the appropriate use of patient resources, and a pharmacist has begun collaborative services in the physician clinic.

The pharmacy technician and oncology financial navigator have expanded the patient assistance program, with an annual medication cost recovery of almost \$3 million. Recent developments include the completion of the hazardous drug mixing area expansion, as well as the development of an investigational drug service (IDS). Future goals of RCC pharmacy are to re-expand patient education in the infusion center and clinic, as well as implement physical expansion of the oncology program.



**Christine Gegeckas, RPh, BCOP, FFSHP
(Pharmacy Director)**

Lee Health Specialty Pharmacy

Lee Health Specialty Pharmacy, based within Lee Health Coconut Point, provides unique answers to the challenges patients and healthcare professionals face in providing high cost, high touch therapy to those with complex disease states. The Lee Health Specialty Pharmacy team includes 6 pharmacists and 10 pharmacy technicians and is currently expanding. Pharmacists are a dedicated resource within neurology, rheumatology, pulmonology, and infectious disease clinics and focus efforts in ensuring optimized and personalized medication therapy for each patient. Pharmacy technicians work steadily to facilitate prescription coverage, insurance approval, and timely delivery of medications.

Since opening in February 2020, Lee Health Specialty Pharmacy has grown from serving 50 patients to over 3000

patients monthly. Due to the expertise of pharmacy team members, Lee Health Specialty Pharmacy provided \$9 million in savings to their patients. Pharmacy team members provide exceptional and compassionate care through their coordination of refills, medication delivery, and periodic assessments and interventions.

Lee Health Specialty Pharmacy also collaborates with inpatient and outpatient pharmacy services to provide support in ordering high cost medication therapy and serving as a resource for clinical support on specialty medications. Lee Health Specialty Pharmacy holds ACHC accreditation and is expected to be dual accredited with URAC the end of 2021.



Jessica Maroti, RPhT (Pharmacy Liaison), Fredrick Campogni, PharmD, CSP, AAHIVP, 340B ACE (Clinical Pharmacist), RJ Barker, CPhT (Pharmacy Liaison), Binoy Shah, PharmD, MBA, CSP, AAHIVP (General Manager), Beth Watkins, RPhT (Pharmacy Liaison)

Skilled Nursing Facilities and Units

Lee Health Pharmacy began servicing the Skilled Nursing Facility (SNF) and the two Skilled Nursing Units (SNU) in July 2020. Providing this new service has given the health system the opportunity to optimize the patient care continuum, provide a more seamless transition of care to the skilled nursing setting, and coordinate timely placement upon discharge. The conversion of the three facilities from an external pharmacy provider to Lee Health pharmacy services created savings to fund the implementation of the Epic LTC module.

HealthPark Care and Rehab Center is a 112-bed free standing SNF on the HealthPark Medical Center campus featuring rehab and long term beds. Gulf Coast SNU is a newly opened free standing unit on the Gulf Coast Medical Center campus consisting of 75 rehab beds. Lee Memorial SNU is an 18-bed rehabilitation unit located as a patient floor within Lee Memorial Hospital's campus.

The skilled nursing facilities and units all feature automated dispensing machines with over 90% electronic management and integrated computer services with the hospital pharmacies. The inpatient pharmacy manages drug distribution to these sites. With an average verification time around 12 minutes, the integration with Lee Health pharmacy has improved the availability and timeliness of medication administration to the skilled nursing residents. In addition, a safety process for medication administration and resident identification bar-code scanning was an added feature that was also implemented within the skilled nursing facilities and units.

A designated full time consultant pharmacist performs admission drug reviews, monthly drug regimen reviews, nursing education, clinical follow up

and is the pharmacy liaison to the skilled nursing facilities and units. The consultant pharmacist works closely with the in-patient pharmacy team and the skilled nursing team to improve patient care at every stage of continuum including admissions, discharges, formulary management, and policy development.



Melinda Garner,
PharmD, BCPS and
Joy Darnell, RPh, CPh



LeeSar Cooperative Services of Florida

LeeSar is a regionally ranked supply chain service organization who provides medications, supplies, and services to member healthcare organizations. Cooperative Services of Florida (CSF) serves as the regional aggregation group in partnership with Vizient to ensure the medications supplied and purchased by members remain at

the lowest costs possible. Together these two companies optimize financial savings, mitigate supply shortages, and provide high quality safety services through the use of innovative technology. The pharmacy services include a central pharmacy distribution center, a 503B sterile to sterile compounding pharmacy for shortage medications, nuclear pharmacy services, tray exchange programs, and a first responder division for the local community served with Lee Health. The pharmacy team responsibilities include working with health system key stockholders and provider leadership as well as senior administration to target collective initiatives, pursue regional standardization, and maximize purchasing power through an established negotiation and contracting process.



Jonathan Girnys, PharmD, MBA, BCPS
Vice President of Pharmacy Services



Antimicrobial Stewardship

The Lee Health Antimicrobial Stewardship Program aims to optimize clinical outcomes of antimicrobial therapy, minimize unintended effects of antimicrobials (toxicity, adverse events, selection of resistant pathogens), and provide cost-effective care.

The program includes two full-time infectious diseases clinical pharmacist specialists who oversee antimicrobial stewardship at the four adult acute care hospitals as well as the Rehabilitation Hospital and the Coconut Point Emergency Department and a physician champion. The collaborative operations of the program

are conducted through Antimicrobial Stewardship Subcommittees, which are co-chaired by the stewardship pharmacists as well as physician champions specific to each setting. These subcommittees report to Infection Prevention CCG, Pharmacy and Therapeutics (P&T), and other committees as applicable to individual initiatives. The program staff and work groups also collaborate and coordinate efforts with the Antimicrobial Stewardship Program at Golisano Children's Hospital, which is led by a clinical pharmacist and physician team.



From left to right: Elisabeth Chandler, Pharm.D., BCIDP, Megan Patch, MS, PharmD, BCPS, BCIDP, BCPPS and Ashley Cubillos, Pharm.D., BCPS, BCIDP

During calendar year 2020, key initiatives for the Antimicrobial Stewardship Program included:

- Implementation and continual update of internal COVID-19 antiviral and anti-inflammatory treatment guidelines during the initial months of the COVID-19 pandemic
- Implementation and oversight of emergency use authorization, compassionate use, and off-label pharmacotherapies for COVID-19, including remdesivir, tocilizumab, and monoclonal antibodies
- Implementation of area under the curve (AUC)-based vancomycin monitoring, with the goal of improving safety of vancomycin while maintaining positive clinical outcomes
- Revision of pneumococcal vaccination recommendations

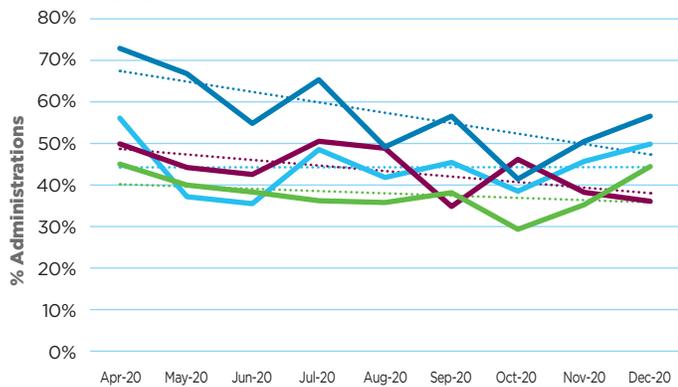
for acute care, skilled nursing, and rehabilitation facilities to the newest ACIP recommendations, resulting in an estimated system cost savings of \$311,000 per year

- Implementation/update of multiple guidelines and treatment pathways, including institutional antibiograms (including a combination anti-Pseudomonal antibiogram), pneumonia pathway and order sets, renal dosing, polymyxin use, pharmacokinetics, and pediatric maximum antibiotic dosing
- Implementation of education and data feedback regarding pharmacist-driven intravenous-to-oral conversion, resulting in a 10% decrease in administrations

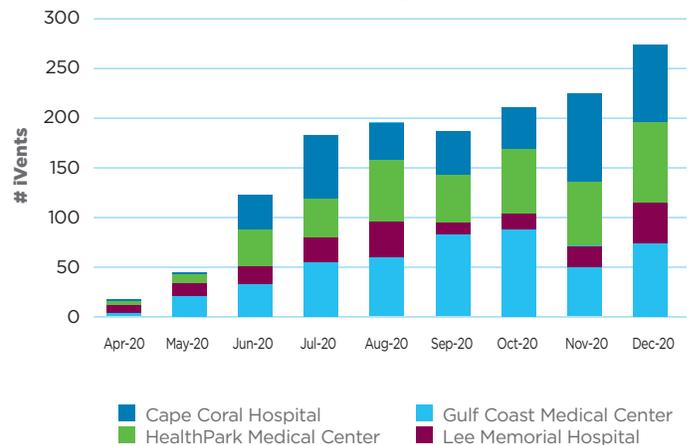
of IV doxycycline and 5% decrease in IV linezolid system-wide over 6 months

- Continuation of community antimicrobial stewardship initiatives, including fluoroquinolone use reduction, with sustained $\geq 50\%$ decrease in fluoroquinolone utilization for urinary tract infection treatment at all outpatient clinic locations (urgent care, primary care, and employee health)
- Reinstatement of the PGY2 Infectious Diseases Pharmacy Residency Program
- Initiation and completion of multiple research and medication use evaluation projects for optimization of antimicrobial use across the system

IV Doxycycline Administrations



Antimicrobial Stewardship - IV to PO iVents



Informatics and Automation

The Pharmacy Informatics (IT) Team provides comprehensive support to the Lee Health Pharmacy personnel in all aspects of medication ordering, preparation, dispensing, administration, charging, decision support, and reporting. The team comprises a collaborative effort of 7 pharmacists, 7 pharmacy technicians, 1 registered nurse, and 1 information systems analyst.

While the Pharmacy IT team is dedicated to maintaining and troubleshooting existing systems, these responsibilities account for only roughly 25% of workflow. As Lee Health continues to grow and expand patient care service lines, the Pharmacy IT team's primary goal is to facilitate change. As such, the majority of the IT work effort is focused on implementing new projects across the health system. In the past year, major projects included the implementation of Beacon Oncology, upgrade to Pyxis ES, and provision of COVID-19 Vaccine support.

Primary Support Areas:

- Inpatient and outpatient pharmacies, Specialty pharmacy, Complex Care Center, Regional Cancer Center
- Individualizing the ordering, administering, or prescribing medications based on employee position
- Supported applications/activities:
 - ◆ Epic Willow Inpatient, Ambulatory, and Inventory
 - ◆ Epic Beacon Oncology Module (go-live August 2021)
 - ◆ BD Pyxis ES (upgraded from Pyxis 4000) and BD Remote Assist
 - ◆ Emporos MerchantSoft Point of Sale system
 - ◆ MacroHelix 340b Software
 - ◆ Baxter Abacus TPN Compounding software/EM 1200 and EM 2400 TPN Compounders
 - ◆ Baxter Care Everywhere Drug Library software/Sigma Infusion pumps
 - ◆ Smiths Medical PharmGuard software/Medfusion 4000 Syringe pumps/CADD Solis PCA pumps
 - ◆ Cardinal E-recovery patient assistance program
 - ◆ E-prescribing
 - ◆ Diversion Surveillance

Recent accomplishments:

- PDMP integration into Epic
- Implementation of e-prescribing of controlled substances (EPCS)
- Meds to Beds program implementation and support
- Supporting rapid turnaround and solutions to meet patient care needs relative to COVID-19
- Implementation of the Epic Long Term Care module and converting pharmacy services from an external provider to internal
- Implementation of Smiths Medical CADD Solis PCA/Epidural infusion pumps
- Implementation and support of Specialty Pharmacy services in coordination with Trellis Rx
- Expanded pharmacy data models within Epic Slicer/Dicer reporting tool



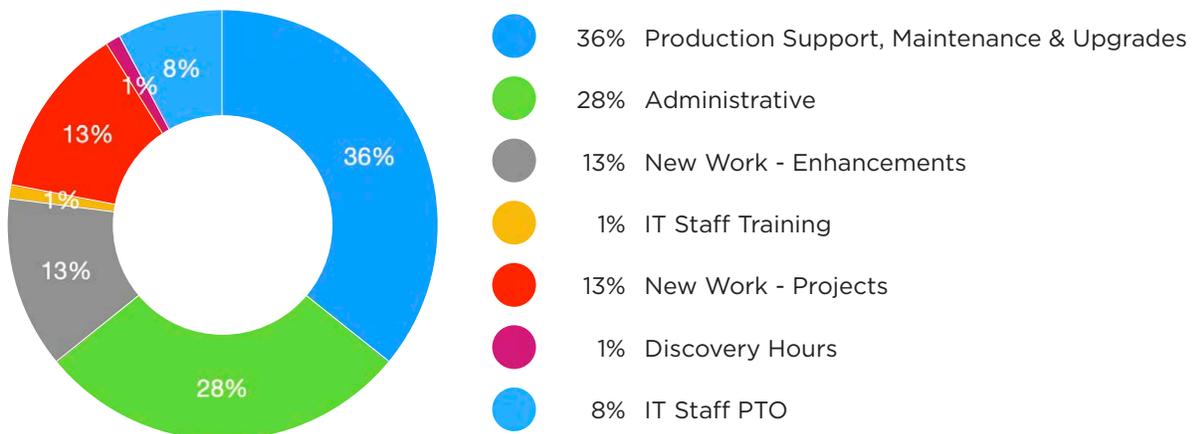
Training and Education

- Initial Epic training to all new inpatient pharmacy department employees, residents, and students
- Pharmacy Informatics Learning Experience elective to PGY1 and PGY2 residents
- Pharmacy Tips of the Week: weekly newsletter that provides updated changes to pharmacy staff



From left to right: Emily Lowande, RPhT, CPhT (PAT); Andy Murrin, RPhT, CPhT, (PAT), Chris Scott, PharmD (Manager Pharmacy Informatics) and Justin Soto, RPhT, CPhT (PAT) PAT: Pharmacy Automation Technician

Lee Health | IS Hours by Category

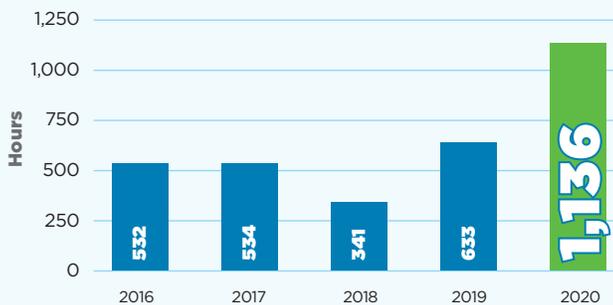




Educational Focus

Lee Health has been an ACPE accredited Continuing Education Provider since 2008. Our ACPE educational mission is to provide easily accessible, evidence-based, and relevant educational offerings based on the educational needs of our health-system pharmacists and technicians. Due to the diversity of pharmacist specialties and technician responsibilities within our health system, we offer a wide variety of educational offering to meet the needs for education across the spectrum of practice. Our Lee Health Residents provide at least one ACPE accredited program during the residency year. In 2020 we have developed 47 unique education programs and awarded over 1000 hours of accredited hours to our employees.

Lee Health Continuing Education Hours Provided



Lee Health ACPE

Pharmacy Technician Training Program

The Pharmacy Technician Training Program (PTTP) at Lee Health provides essential skills needed to successfully practice in the adult acute care and outpatient pharmacy setting, as well as specialty areas such as pediatrics and chemotherapy. As the only American Society of Health-System Pharmacists (ASHP) and Accreditation Council for Pharmacy Education (ACPE) accredited pharmacy technician program serving Southwest Florida, the PTTP is designed to educate, train, and retain students as employees after program completion.

The 21-week program provides experience in a multi-health system environment, including didactic, simulation, and experiential training. Students dedicate 400 hours to didactic topics, such as pharmacology and mathematical calculations, as well as simulation training including aseptic technique, proper garbing, IV mixing, reconstitution, and repackaging. In addition, students gain a total of 220 hours in experiential training in the adult

inpatient, ambulatory, and pediatric inpatient pharmacy settings.

Following program completion, instructors offer support in preparation for the Pharmacy Technician Certification Exam. As of 2021, the program has achieved a 98% graduation rate, 98% Florida pharmacy technician registration rate, 73% Lee Health retention rate, and is on track to earn a 73% Pharmacy Technician Certification Board (PTCB) certification rate.

The Lee Health PTTP offers a dynamic educational experience for pharmacy technician students while empowering them to become high-achieving leaders in the pharmacy profession. Overall, pharmacy technician students will be able to cultivate relationships with patients and a multi-disciplinary healthcare team to provide optimal patient-centered care and meet our evolving healthcare system's challenging needs.



Pharmacy Technician Training Class Spring 2021

Doctor of Pharmacy Training Program

Lee Health provides experiences for both advanced and introductory pharmacy practice experiences in the acute care and community settings. Lee Health was an innovator in the state of Florida with the implementation of our advanced pharmacy practice experience (APPE) Block Program in 2011. Over the last decade our program has ranged between 65-90 student months of rotations per year. Rotations are scheduled at different Lee Health campuses to allow for exposure to a wide variety of preceptors and patient populations. We offer all the core required rotations and more than twelve different elective rotations. Students participate in pharmacy and system level committee meetings, serve as pharmacy extenders in the provision of

pharmacy clinical services and complete a medication use evaluation (MUE). Many students present their MUE results in a poster format at state or national meetings. Lee Health utilizes a layered learning approach where our students work closely with both PGY1 and PGY2 residents. Residents precept students during core rotation activities as well as system-wide activities including weekly educational presentations, topic discussions and the Student-Resident Forum which guides students through the residency application process. APPE Block Program students complete a Grand Rounds presentation and are assigned a Lee Health Mentor to support them through their time at Lee Health and beyond.

Pharmacy Internship Program

Established in 2020, Lee Health's Pharmacy Intern Program was created from our desire to further the development of the next generation of pharmacists. In addition to the Doctor of Pharmacy Training Program, Lee Health Pharmacy Services is invested in providing exceptional educational and experiential opportunities to pharmacist interns to better prepare them as they enter the profession.

In its inaugural year, the program employed 11 pharmacist interns across the health system, including acute care and community pharmacy practice settings. Throughout the duration of the program, pharmacist interns are

exposed to clinical and operational pharmacy processes as well as direct patient care activities. Pharmacist interns are involved in medication reconciliation, patient education, medication distribution, sterile and nonsterile compounding, and other supportive functions.

We are excited that our robust program allows us to retain pharmacist interns into resident or staff positions post-graduation. In the future, we expect to grow our program into additional pharmacy practice areas and offer this educational and development opportunity to more Doctor of Pharmacy candidates.

Pharmacy Residency Program

The pharmacy residency programs at Lee Health are committed to providing excellent training experiences that support the resident's clinical, academic, and professional interests. The programs are dedicated to preparing future pharmacy clinicians and leaders by promoting confidence, leadership and professional skills.

Since the start of our programs in 2008, we have graduated a total of 51 pharmacy residents from our Lee Health PGY-1 and PGY-2 programs. We have

had a total of 44 first-year resident graduates, of which 20 have pursued a second-year in residency training. Eleven first-year residents have stayed at Lee Health to continue their PGY-2 training. Second year residency program types have included: Oncology, Infectious Diseases, Health System Pharmacy Administration and Leadership (HSPAL), Critical Care, Pediatrics, Emergency Medicine, and Internal Medicine. Twenty of our resident graduates are currently working at Lee Health.

PGY-1 Pharmacy Residency

Our PGY-1 Program provides unique opportunities focused on our department strengths in research, leadership, writing and teaching.

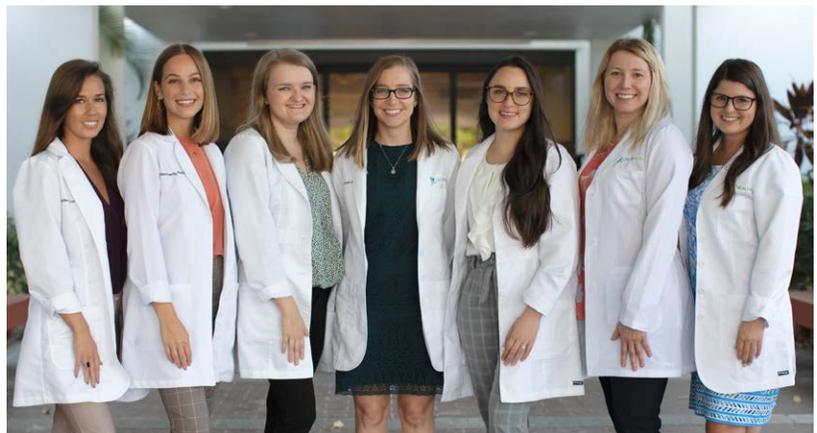
In addition to their major research project which is presented at the Florida Residency Conference each Spring, Lee Health residents conduct a medication utilization evaluation (MUE) in the fall of the residency year with the results presented as a poster at the American Society of Health-System Pharmacists Midyear Meeting.

PGY-1 Residents participate in two longitudinal learning experiences, Administration and Leadership Seminar, which provide the residents with exposure to key concepts in Medication Use Process, Medication Safety, Quality/Performance Improvement, Legal and Regulatory Compliance, Leadership, Human Resources, Transitions of Care, Information Systems, and the Business of Pharmacy. Each resident then chooses an area of focus for a one-month learning experience.

The Lee Health residents publish a newsletter three times a month that is accredited by both ACPE and ACCME

for continuing education credit. *The Dose Newsletter* rotates its focus each month with *The Dose of Pediatrics*, *The Dose of Critical Care* and *The Dose of Infectious Diseases* each providing an in-depth review of recent evidence-based literature or recently published guidelines.

Residents complete the Lee Health ACPE Teaching Certificate which provides them with formal training in the delivery of pharmacy education in order to prepare for their future role preceptors.



PGY-1 Residents from left to right: Natilee Azzara, Julianna Hennig, Stephanie Ducas, Kelsey Smith, Ellen Volovich, Shelly Kearns and Erica Bergeron

PGY-1 Community-Based Pharmacy Residency

The PGY-1 Community-Based Pharmacy Residency Program, established in 2020, provides exceptional training opportunities for pharmacists to optimize their skills in community and ambulatory care settings. PGY-1 Community-Based residents are exposed to direct patient care activities in the adult patient populations within interdisciplinary collaborative practices.

Education and community outreach are integrated into the residency year through brown bag events, immunization clinics, medication therapy management sessions, and patient education services. In addition, PGY-1 Community-Based residents publish *The Dose of Community Practice* as a part of the routine resident newsletter publication series.

PGY-1 Community-Based residents also develop project management skills as they implement process improvements and service lines in the community and ambulatory care setting. As of 2020, the inaugural class of PGY-1 Community-Based residents developed and implemented a Medication Therapy Management Service at Lee Health.



PGY-2 Residents from left to right: Jeanette Alava (HSPAL), Ian Murphy (ID), Arielle Charles (Pediatrics) and Sahar Matloub (Critical Care)

PGY-2 Critical Care

The PGY-2 Critical Care Pharmacy Residency, established in 2015, offers a robust training experience to advance the resident's clinical skills, knowledge base, and professional interests in critical care pharmacy.

The program incorporates training sites across four adult acute care hospitals in areas such as

- HealthPark Medical Center Cardiology ICU and Surgical ICU
- Lee Memorial Hospital Medical ICU
- Lee Memorial Hospital Surgical/Trauma ICU
- Lee Memorial Hospital Emergency Medicine
- Infectious Disease Consult

In addition, elective learning experiences within the health system include

- Gulf Coast Medical Center Neurology ICUs
- Nutrition Support
- Antimicrobial Stewardship
- Inpatient Hematology/Oncology
- Preceptor of PGY1 on Medical ICU

The PGY-2 Critical Care Pharmacy Resident also develops strong presentation, publication, and project management skills throughout their training via the monthly publication of *The Dose of Critical Care Newsletter*, the presentation of two formal ACPE accredited lectures, coordinating the Lee Health Code Blue Competency class, and completing the bi-annual review of the Lee Health Renal Dosing Chart.

- PGY-2 Critical Care resident alumni are
 - Amy West – Critical Care Clinical Specialist (Medical/Surgical/Emergency Medicine) for Orlando Health Dr. P. Phillips Hospital, Orange County, FL
 - Paul Ahearn – Critical Care Clinical Specialist (Medical/Cardiac ICU) for Bridgeport Hospital, Bridgeport, CT
 - Michelle Henninger – Critical Care Clinical Pharmacist (Surgical ICU) for Cleveland Clinic, Weston, FL
 - Kelly Groover – Critical Care / Oncology Pharmacist for Lee Health, Fort Myers, FL

PGY-2 Health System Pharmacy Administration and Leadership

The PGY-2 Health System Pharmacy Administration and Leadership residency program, established in 2014, is designed to develop the resident's skills, knowledge base, and professional interests in pharmacy practice leadership.

The program incorporates learning experiences integrated in the entire health-system, which comprise various patient populations and pharmacy service lines (i.e. adult and pediatric population, acute care, ambulatory, and community services). The PGY-2 HSPAL resident completes overlapping learning experiences such as

- Human Resources
- Business Development
- Clinical Practice Management
- Community Practice
- Acute Care
- Medication Safety and Quality

■ Financial Management

In addition, elective learning experiences within the health system can be focused on Pediatrics, Oncology, Education and Training, etc. The PGY-2 HSPAL Resident develops strong presentation skills through chairing of system wide committees such as Pharmacy and Therapeutics, Pharmacy Director's Meeting, and Medication Safety, as well as leading process improvements and transactional changes.

■ PGY-2 HSPAL resident alumni are

- Jonathan Girnys - Vice President of Pharmaceutical Services, LeeSar CSF, Fort Myers, FL
- Farima Fakheri Raof - Pharmacy Manager, Lee Memorial Hospital, Fort Myers, FL
- Michelle Estevez - Clinical Pharmacist, Lee Health Coconut Point, Estero, FL

PGY-2 Infectious Diseases

■ The PGY-2 Infectious Disease Pharmacy Residency, started in 2011, is dedicated to developing infectious disease pharmacy clinicians through advancing knowledge, leadership and professional skills.

■ Core learning experiences across the health system include:

- Microbiology
- Critical Care
- Antimicrobial Stewardship (I and II)
- Antimicrobial Stewardship Administration
- ID Consult (I and II)
- HIV Clinic

■ Elective learning experiences the resident can be exposed to include:

- Emergency Medicine
- Inpatient HIV
- Informatics
- Pediatric Antimicrobial Stewardship/Infectious Diseases Consult

■ In addition, residents will be involved in various longitudinal learning experiences including a longitudinal research or quality improvement project, PGY2 Newsletter (The Dose of Infectious Diseases), two ACPE programs, and pharmacy practice service.

- PGY-2 Infectious Diseases resident alumni are
 - Mike Turk – Antimicrobial Stewardship Pharmacist, St. Elizabeth Healthcare, Edgewood, Kentucky
 - Emily Weisz – Infectious Diseases Clinical Specialist, Bridgeport Hospital, CT
 - Edgar Turner – Emergency Medicine Pharmacist, Lee Health, Ft Myers, FL
 - Megan Patch – Pediatric Infectious Diseases Clinical Specialist, Golisano Childrens’ Hospital of Southwest Florida, Fort Myers, FL

- Jonathan Cho – Assistant Professor, University of Tyler, TX
- Marylee Worley – Assistant Professor, Nova Southeastern University College of Pharmacy, Ft. Lauderdale, FL
- Aileen Martinez – Infectious Disease Specialist, Cleveland Clinic Martin Health, Stuart, FL
- Lauren Tesh Hotaki – Antimicrobial Drugs Advisory Committee/ Oncological Drugs Advisory Committee, Designated Federal Officer, CDER, OEP, FDA

PGY-2 Pediatrics

- The PGY-2 Pediatric Pharmacy Residency, started in 2017, is committed to providing excellent training experiences to advance the resident’s clinical skills, knowledge base, and professional interests. The program is dedicated to preparing future pediatric pharmacy clinicians and leaders by promoting confidence, leadership and professional skills.
- The training site at Golisano Children’s Hospital of Southwest Florida is a free-standing pediatric hospital with 128 beds. Required core rotations are four to six weeks and

includes Pediatric Medical/Surgical Care, Pediatric Intensive Care I &II, Neonatal Intensive Care, Pediatric Infectious Diseases and Antimicrobial Stewardship, Pediatric Hematology/ Oncology, Pediatric Emergency Medicine, and Scholarly Research.

- In addition to the core rotations, residents will be involved in various longitudinal learning experiences such as Project Management, PGY2 Newsletter (The Dose of Pediatrics), Clinical Practice Advancement, Medication Safety, Pharmacy Practice Leadership, Pharmacy Practice Experience (Service), Pediatric Cystic Fibrosis Clinic, and a Teaching Certificate Program if not previously obtained. Current elective rotations include Neonatal Intensive Care and Obstetrics and Gynecology.



Residency Program Directors from left to right: Suzanne Turner (PGY-1), Mallory Fiorenza (PGY-2 Critical Care), Anson Phetteplace (PGY-1 Community-Based), John Armitstead (PGY-2 Health System Pharmacy Administration and Leadership), Ashley Cubillos (PGY-2 Infectious Disease), Julie Tremblay (PGY-2 Pediatrics)

- PGY-2 Pediatrics resident alumni are
 - Christina Schwarz – Pediatric Clinical Pharmacy Manager for Driscoll Children’s Hospital, Corpus Christi, TX
 - Elizabeth Faville – Pediatric Clinical Pharmacist for Sarasota Memorial Hospital, Sarasota, FL
 - Christopher Kennie-Richardson – Pediatric Clinical Pharmacist for Moses H. Cone Memorial Hospital, Greensboro, NC

RESEARCH

Lee Health Pharmacy Services encourages research and development through the activities of the Research and Scholarly Subcommittee (RSS) and Lee Health Institutional Review Committee (IRC).

RSS is a subgroup of the Residency Advisory Council that is responsible for the oversight, review, and approval of medication use evaluations (MUE) and major research projects for PGY1 and PGY2 residents. The subcommittee prioritizes projects based on the impact to the health system, time needed for completion, appropriateness for publication or presentation, and expected level of research team expertise (i.e. student, resident, practitioner, specialist, management). All MUEs and major research projects conducted within the health-system are presented to RSS for approval and feedback is provided on project design, data collection, and IRC submission proposal. Furthermore, an RSS member is assigned to each resident as a reviewer over the course of the year for their major research project. The reviewer provides feedback on the resident's ASHP poster,

Florida Residency Conference abstract, and final manuscript.

The IRC, also known as an Institutional Review Board, is a group of individuals who review, monitor and approve or disapprove human subject research at Lee Health. The IRC comprises non-scientific and scientific members who provide oversight to roughly 150 protocols at any given time, with pharmacy contributing approximately 10 research protocols annually.

Over the past two years, pharmacy research has included:

2020-2021 Statistics

- Medication Use Evaluations: 11
- Resident Research Projects: 9

2019-2020 Statistics

- Medication Use Evaluations: 10
- Resident Research Projects: 9

PLATFORM PRESENTATIONS

2021

- Armitstead JA. Strategic Planning for Health System Pharmacy in Turbulent Times. Premier/Acurity Webinar 2021.

2020

- Reed BN, Armitstead JA. Leading the Future Workforce: Balancing Innovation with Resilience. American Society of Health System Pharmacists Virtual Conference for Pharmacy Leaders 2020.

2019

- Armitstead JA. Controlled Substances Part II Medication Assisted Treatment. Florida Society of Health System Pharmacists Annual Meeting 2019.
- Cubillos A. Cavert W. Boeser K. Impact of an Electronic Pharmacist Driven Antimicrobial Stewardship Tool on Carbapenem Utilization in an Academic Medical Center. MAD ID Annual Meeting 2019.
- Dagam J. Turner S. Phillips B. Quality Counts: Writing Meaningful References American Society of Health-System Pharmacists National Preceptor Conference 2019.

- Keenan C, Armitstead JA, Fakheri Raof, F. Strengthen the Pharmacy Technician Pipeline. Advisory Board Pharmacy Executive Forum National Webinar 2019.

- Moulton J. Turner S. Integrating CPD into Your CPE Program. ACPE Spring Education Conference 2019.

- Roberson A. Dagam J. Turner S. Those Pesky Policies: Developing Effective Residency Policies American Society of Health-System Pharmacists National Preceptor Conference 2019.

- Von Waldner T. Turner S. Baumgartner J. CPD Across Pharmacy Education and Practice. CE Pearls: ACPE Spring Education Conference 2019.

2018

- Armitstead JA. Building the Pharmacy Technician Pipeline. The Advisory Board, Advisory Board Pharmacy Executive Committee Meeting 2018

- Armitstead, JA. Continuous Professional Development, Succession Planning and Interacting with the C-Suite. Acurity Annual Meeting 2018.

- Elizabeth B. Hirsch, Delaney E. Hart, Ashley Piche, Ashley L. Cubillos, Kira R. Beaulac, et al. A Multi Center Evaluation of Outcomes following Treatment with Ceftolozane Tazobactam. Global Conference on Clinical Pharmacy 2018.
- Fiorenza M. Critical Care Track: Management of Alcohol Withdrawal in the Critically Ill Patients. Florida Society of Health System Pharmacists Annual Meeting 2018.
- Kirschling TE, Armitstead JA, Schaafsma K.

Practical Strategies for Overcoming the Hurdles of the Opioid Epidemic. American Society of Health-System Pharmacists Midyear Clinical Meeting 2018

- Turner S. Chang J. Purposeful Preceptor Development Moving From Surviving to Thriving. American Society of Health-System Pharmacists National Preceptor Conference 2018.

POSTER PRESENTATIONS

2019-2020

- Alava JA, Armitstead JA, Lozano Y. Evaluation of Adult Acute Care Hospital Pharmacy Productivity Metrics. American Society of Health-System Pharmacists Midyear Clinical Meeting 2020.
- Bergeron E, Charles, A, Patch M, Masse, H, Stovall, S. Antimicrobial Stewardship Opportunities for IV to PO Conversion in Pediatric Patients with Intra-Abdominal Infections. American Society of Health-System Pharmacists Midyear Clinical Meeting 2020.
- Cader A, Newton E, Gilmartin E. Alert Fatigue Reduction Utilizing Ketorolac Pharmacodynamics. American Society of Health-System Pharmacists Midyear Clinical Meeting 2020.
- Cubillos A, Chandler E, Patch M, Saunders M, Lynch L, Gieselman M, Calkins K. Antimicrobial Stewardship Intervention Bundle Decreases Fluoroquinolone Prescribing for Urinary Tract Infection in Urgent Care and Primary Care Clinics. Poster Presentation at ID Week 2020
- Ducas S, Murphy I, Chandler E, Saunders M, Cubillos A. Empiric utilization of antimicrobials targeting multidrug-resistant organisms in the management of community-acquired pneumonia at a multicenter community health system. American Society of Health-System Pharmacists Midyear Clinical Meeting 2020.
- Fiorenza MA, Barkes J, Naik SK. Adjunctive Oral Midodrine Treatment in Critically Ill Patients: Effect on Weaning Intravenous Vasopressors. Critical Care Congress 2020.
- Groover K, Fiorenza MA, Kasiewicz J. High versus Low Rate Continuous Hypertonic Saline Infusions for Traumatic Brain Injury: Effects on Sodium Levels. Critical Care Congress 2020.
- Groover K, Henninger M, Fiorenza MA, Johnson CA, Hamel MG. Evaluation of the Effects of Pre-hospital Administered Ketamine for Agitation or Procedural Sedation on Hospital Length of Stay and Mechanical Ventilation Days Critical Care Congress 2020.
- Henninger M, Fiorenza MA, Feroz AM. Lactated Ringers versus Normal Saline in Critically Ill Patients and the Incidence of Acute Kidney Injury. Critical Care Congress 2020.
- Kearns S, Matloub S, Fiorenza F, Taillon J, Pammi S. Assessment of an Anticoagulation Protocol for Coronavirus Disease 2019 Patients within a Community Health-System. American Society of Health-System Pharmacists Midyear Clinical Meeting 2020.
- Volovich E, Smith K, Acosta C, Gatskevich E, Chandler E. Assessing ceftaroline utilization within a multicenter community health-system. American Society of Health-System Pharmacists Midyear Clinical Meeting 2020.
- Ahearn P, Fiorenza MA, Taillon J. Adjunctive Dexmedetomidine with Benzodiazepines Compared to Benzodiazepines Alone in Critically Ill Patients with Alcohol Withdrawal Syndrome: Effect on Length of Stay. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
- Chandler E, Palavevecino E, Johnson JW, Beardsley JR, OhlCA, Luther FP, Williamson JC. Impact of Minimum Inhibitory Concentration on Clinical Outcomes of Daptomycin for VRE Bacteremia among Neutropenic Oncology Patients. ID Week 2019.
- Cubillos A, Hart DE, Gallagher JC, Puzniak LA, Hirsch EB; for the C/T Alliance to deliver Real-World Evidence (CARE). Ceftolozane-tazobactam(C/T) treatment outcomes in

- immunocompromised (IC) patients with multidrug-resistant (MDR) *Pseudomonas aeruginosa* (PA) infections. ID Week 2019.
- Estevez M, Phetteplace A, Armitstead JA, Kolson J, Pugh R. Readmission rate reduction of Bedside Prescription Delivery Service and Discharge Medication Reconciliation Approved by Pharmacist Programs, Florida Society of Health System Pharmacists Annual Meeting 2019.
 - Evans R, Kearns S, Tran T. An assessment of haloperidol given on override status for acute agitation and delirium at Lee Health. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Faville E, Tremblay J, Monge R. Comparison of two sedation assessment scales on the dose and duration of analgesia and sedation medications in critically-ill ventilated pediatric patients. PPAG 2019
 - Fiorenza M, Cader A, Parmeet S. Outcomes Associated with High versus Low Dose Corticosteroids in Mechanically Intubated Patients with Acute Exacerbations of Chronic Obstructive Pulmonary Disease. Critical Care Congress 2019.
 - Groover K, Hill K, Fiorenza M, Kole M. Utilization of angiotensin II in a community health system. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Guglielmo K, Oyebanjo M, Estevez M, Volovich E. Assessing the appropriate use of injectable calcitonin within a multi-hospital health-system. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Kastrati S, Cubillos A, Reynolds S. Management of Aspiration Pneumonia in the ICU setting. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Kennie-Richardson C, Thorp E, Patch M, Stovall S. Attainment of Therapeutic Trough Levels in Pediatric Patients Receiving Vancomycin. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Patel R, Wallace J, Slomer J. Impact of a collaborative transition of care center on preventing hospitalizations and reducing readmission rates. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Quarterman K, Terry D, Hernandez A. Implementation of a 4T score upon ordering a Heparin platelet factor 4-antibody and the influence on patient outcomes in a large community health system. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Tabulov C, Estevez M, Fiorenza M, Shenoy G. Impact of filter lifetimes on delivered effluent rates in patient receiving citrate and non-citrate anticoagulation therapy during continuous renal replacement therapy. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Thorp E, Dungca A, Cubillos A, Saunders M. Utility of procalcitonin in the discontinuation of antibiotics for respiratory tract infections. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Turner E, Cubillos A, Wilson S, Britt N. Cultures Prior to Empiric Antimicrobial Administration in the Management of Bone and Joint Infections. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
- 2018-2019
- Bahr R, Tirb K, Fakheri Raof F, Duggan P. Evaluation of hospital inpatient naloxone use in a health-system. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019
 - Barkes J, Faville E, Patch M, Stovall S. Review of *Staphylococcus aureus* colonization polymerase chain reaction and chromagar plate screenings on selection of or a change in antimicrobial therapy within a community pediatric hospital. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019
 - Brubaker BK, Duggan PA, Kole M, Phetteplace AL, Armitstead JA. Reducing COPD Patient Readmissions with Pharmacist Intervention. Florida Society of Health System Pharmacists Annual Meeting 2018.
 - Estevez M, Rolfe M, Hire R, Peterson D. Evaluation of periprocedural use of cangrelor in patients with antiplatelet requirements within a multi-hospital health system. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Fakheri Raof F, Fiorenza M, Armitstead J, Saunders M. Optimizing Patient Outcomes and

- Reducing Cost by Managing Acid Suppressive Therapy Prescribing. American Society of Health-System Pharmacists Leaders Conference 2018.
- Faville E, Turner S, Armitstead JA. Strength in Numbers: Assessing the Use of Strengthsfinder in a Pharmacy Residency Program. Florida Society of Health System Pharmacists Annual Meeting 2018.
 - Groover K, Henninger M, Fiorenza M, Johnson C, Harnel M. Evaluation of the effects of pre-hospital administered ketamine for agitation or procedural sedation on hospital length of stay and mechanical ventilation days. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Pinero B, Sheridan R, Nancarrow D, Hire R, Khan J. Evaluation of the duration of epilepsy prophylaxis in aneurysmal subarachnoid hemorrhage. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - Raof F, Hire R. Evaluation of Risk Factors for Hemorrhagic Transformation after Alteplase for Ischemic Stroke in a Community Healthcare System. Florida Society of Health System Pharmacists Annual Meeting 2018.
 - Thorp E, Duckworth K, Fakheri Raof F, Hsin-Cheng D. Evaluation of Intranasal Midazolam Administration in Pediatric Emergency Department Patients for Pre-Procedural Anxiolysis. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.
 - West M, Jenkins D, Duggan P, Fakheri Raof F. Evaluation of medication errors identified by pharmacists during discharge medication reconciliation. American Society of Health-System Pharmacists Midyear Clinical Meeting 2019.

PUBLICATIONS

- Armitstead JA, et al. Executive summary of the meeting of the 2020 American Society of Health-System Pharmacists Commission on goals: preparing the healthcare workforce for a digital future. *American Journal of Health-System Pharmacy*. 2021;78(5):447-453.
- DiPiro JT, Armitstead JA, et al. American Society of Health-System Pharmacists foundation pharmacy forecast 2021: strategic planning advice for pharmacy departments in hospitals and health systems. *American Journal of Health-System Pharmacy*. 2021;78(6):472-497.
- Faville E, Turner S, Armitstead JA. Strengths in numbers: Assessing the use of StrengthsFinder 2.0 in a pharmacy residency program. *American Journal of Health-System Pharmacy*. 2020;77(Supplement_3):S66-S70.
- Horner D, Altshuler D, Droege C, Feih J, Ferguson K, Fiorenza MA, Greathouse K, Hamilton L, Pfaff C, Roller L, Stollings J, Wong A. Major publications in the critical care pharmacotherapy literature: January-December 2016. *J Crit Care*.
- Lozano Y, Armitstead JA, et al. Letters from Leaders in Pharmacy. *American Journal of Health-System Pharmacy*. 2021.
- Rolfe M, Gegeckas C, Turner S, Orr JW. Predictive factors for carboplatin hypersensitivity reactions in gynecologic cancers: Effect of BRCA status. *J Oncol Pharm Pract*. Published online October 25, 2020:107815522096798.
- Steve Rough, BSPHarm, MS, FASHP, Rita Shane, Pharm.D, FASHP, FCSHP, John A Armitstead, BSPHarm, MS, FASHP, Sylvia M Belford, Pharm.D, MS, CPHIMS, FASHP, Philip W Brummond, Pharm.D, MS, FASHP, David Chen, BSPHarm, MBA, Christine M Collins, BSPHarm, MBA, Heather Dalton, Pharm.D, Anna Legreid Dopp, Pharm.D, Michelle M Estevez, Pharm.D, DPLA, BCPS, David R Hager, Pharm.D, BCPS, Brooke Halbach, Pharm.D, BCPS, Ryan Hays, Pharm.D, BCPS, Scott Knoer, Pharm.D, MS, FASHP, Desi Kotis, Pharm.D, FASHP, Derek Montgomery, Pharm.D, MS, Brooks Plummer, Pharm.D, Melissa R Riestler, Pharm.D, Diana J Schreier, Pharm.D, MBA, BCPS, Deborah Simonson, Pharm.D, Mark H Siska, BSPHarm, MBA, FASHP, Kelsey Waier, Pharm.D, Lee C Vermeulen, BSPHarm, MS, FCCP, FFIP. The high-value pharmacy enterprise framework: Advancing pharmacy practice in health systems through a consensus-based, strategic approach. *Am J Health-Syst Pharm*. 2021; 78(6):498-510.

340B Program

340B Summary

The 340B Drug Discount Program is a US Federal Government program created in 1992 with the intent to “stretch federal resources as far as possible, reaching more eligible patients and providing more comprehensive services.” The program, enforced by the Health Resources and Services Administration (HRSA), requires drug manufacturers participating in Medicaid to provide outpatient drugs to eligible health care organizations and “covered entities” at significantly reduced prices.

Lee Health has participated in the 340B program since 2009 as a disproportionate share hospital. Specifically, this means that Lee Health is a not for profit health system which serves a high percentage of Medicare and Medicaid covered patients. The scope of the 340B program at Lee Health includes Lee Memorial Hospital, Healthpark Medical Center, Golisano Children’s Hospital, the Regional Cancer Center, Coconut Point, certain hospital-owned retail pharmacies, numerous outpatient clinics, and several contract pharmacy arrangements

(i.e. Walgreens, CVS Specialty, Walmart, Publix, etc.). Since its inception in 2009, the Lee Health 340B program has grown from 9 registered locations to its present 235 active registrations.

In 2017, the complexity and scope of the 340B program at Lee Health combined with the growing regulatory requirements prompted the development of a 340B Compliance Officer position. This was followed by the addition of a program auditor in 2019, and an analyst in 2020. The 340B Compliance

staff all possess advanced 340B certifications and bring years of relevant experience to the program.

The in-house 340B auditor performs various program self-audits on a monthly, quarterly, and yearly basis as well as assisting with external audit requests as needed. The auditor reviews more than 6000 claims annually for compliance with eligibility requirements and the prevention of diversion, GPO prohibition, and duplicate discounts.

The 340B analyst works closely with pharmacy teams throughout the health system to assist with inventory management and the maintenance of each pharmacy’s billing and recording software. These efforts assure compliance and yield optimal benefits from the 340B program. Purchasing reports are generated on a monthly basis to check for possible inaccuracies as well as opportunities.

Effective communication between the 340B Compliance Team and system pharmacy leadership is assured via bi-monthly 340B Compliance and Operations team meetings as well as participation in system pharmacy leadership meetings. This collaboration assures that appropriate resources are dedicated where appropriate, that findings are appropriately communicated and acted upon, and that policies and procedures remain current and effective.

In addition to audits from drug manufacturers and regulatory bodies (i.e. HRSA), Lee Health undergoes an annual on-site audit conducted by an independent third party vendor. The findings and feedback generated by this annual review is then evaluated for possible areas of improvement.

The 340B program at Lee Health successfully completed its first ever HRSA audit in 2020. Also in 2020, despite the unprecedented challenges posed by COVID-19, over \$26 million in cost avoidance and revenue was retained by the system as a result of the program.



From left to right: **Monika Bartsch, MBA, BSBM, CPhT, RPhT, 340B ACE(Pharmacy and 340B Program Compliance Auditor), Joseph Bitner, Pharm.D., CPh, CHC, 340B ACE (Pharmacy and 340B Program Compliance Officer) and Blake Whitney, CPhT, RPhT, PRS, 340B ACE (Pharmacy and 340B Program Compliance Analyst)**

Professional Recognition

AWARDS & LEADERSHIP ROLES

- Amanda Teckenbrock. Florida Society of Health System Pharmacists, Pharmacy Technician of the Year 2019
- Doug Peterson. Florida Society of Health System Pharmacists Preceptor of the Year 2019
- Farima F. Raof. Florida Society of Health-System Pharmacists Educational Affairs Council Member 2018-2021
- Jeanette A. Alava. Florida Society of Health-System Pharmacists, Educational Affairs Council Member 2020
- John A. Armitstead. American Pharmacists Association, Health System Strategy Council 2020-2021
- John A. Armitstead. American Society of Health-System Pharmacists Distinguished Leadership Award Recipient 2020
- John A. Armitstead. Florida Society of Health System Pharmacists, Chair of House of Delegates 2020.
- John A. Armitstead. Get The Medication Right Institute, Practice and Care Delivery Transformation Workgroup 2020-2021
- Lee Health Pharmacy Resident Publication “The Dose”. Florida Society of Health System Pharmacists Institutional Newsletter of the Year 2020
- Michelle Estevez PharmD, Anson Phetteplace, PharmD, John Armitstead, RPh., Joby Kolsum DO, Raymond Pugh. Readmission Rate Reduction of bedside prescription delivery service and discharge medication reconciliation approved by a pharmacist programs. Florida Society of Health System Pharmacists Poster Award 2019
- Rakhi Patel. University of Florida Outpatient Preceptor of the Year 2020
- Suzanne Turner. Chair, American Society of Health-System Pharmacists Commission of Credentialing 2020
- Tina Gegeckas. Florida Society of Health System Pharmacists, Fellow Award 2019

CERTIFICATIONS

BCPS (Pharmacotherapy)

- | | | |
|--------------------------------|-------------------------|---------------------|
| Ann Ghattas | Farah Zuberi (dual) | Mariam Oyebanjo |
| Arya Cader (dual) | Farima Fakheri Raof | Mary Lynn Skruck |
| Ashley Cubillos (dual) | Gloria Hwang (dual) | Megan Patch (three) |
| Beth Wells | Jack Dean | Melanie Rolfe |
| Bradley Murnyack | Jenny Butler | Melinda Garner |
| Catalina Acosta (dual) | Joe Macpherson | Michelle Claman |
| David Ball | Julie Katz | Michelle Estevez |
| Dawn Jelinek | Kari Duckworth | Myles Hersey |
| Doug Peterson | Kelly Groover | Nicole Morrison |
| Edgar Turner (three) | Kristen Crawford (dual) | Rakhi Patel (dual) |
| Erika Walters | Kristin Quarterman | Regina Evans (dual) |
| Estelle Sanchez-Marrero (dual) | Lexie Hoffman | Ron Cabibihan |
| | Mallory Fiorenza (dual) | Ryan Hire (dual) |

Sarah Doyle
Scott Morrison
Shannon Pierce
Stephanie Tears (dual)
Steve Bromley
Sunmi Park

BCACP (Ambulatory Care)

Arya Cader
Bryan Brubaker
Elisa Whitney
Michelle Sadler
Rakhi Patel
Sarah Stull

BCCCP (Critical Care)

Catalina Acosta
Edgar Turner
Estelle Sanchez-Marrero

Jesse Grojean
Mallory Fiorenza
Stephanie Tears

BCCP (Cardiology)

Ryan Hire

BCIDP (Infectious Disease)

Ashley Cubillos
Edgar Turner
Liz Chandler
Megan Patch

BCOP (Oncology)

Jeanine Ewing
Kristen Crawford
Tina Gegeckas

BCPP (Psychiatry)

Regina Evans

BCPPS (Pediatric)

Ashley Nebbia
Glen Kelton
Julie Tremblay
Megan Patch
Michael Barberio

BCSCP (Sterile Compounding)

Farah Zuberi
Gloria Hwang
Ivonne Reyes

CCGP (Geriatric)

Gretchen Petrie
Steve Kessinger

CNSC (Nutrition Support)

Ray Norman

DPLA (AMERICAN SOCIETY OF HEALTH-SYSTEM PHARMACISTS PHARMACY LEADERSHIP ACADEMY)

Anson Phetteplace
Arya Cader
Diana Elnemr
Farah Zuberi
Farima F. Raof

Jeanette Alava
Jonathan Girnys
Mariamo Oyebanjo
Michelle Estevez
Mohit Patel

Peter Duggan
Shannon Preivity
Stephen Kessinger
Suzanne Turner
Yanela Lozano

ADVANCED 340B OPERATION CERTIFICATION - APEXUS

Blake Whitney
Farima F. Raof

Joseph Bitner
Monika Bartsch

PHARMACY TECHNICIAN CERTIFICATIONS

Danielle Santos, Billing and Reimbursement Certificate

Whitney Hummel, Medication History, Billing and Reimbursement, Technician Product Verification, Compound Sterile Preparation Technician

