

PHARMACY SERVICES  
ANNUAL REPORT 2019



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## GREETINGS FROM THE ADMINISTRATOR

I am pleased to present the fiscal year 2019 Annual Report. This report outlines the accomplishments made by Pharmacy Services as we further our mission to heal, comfort, and care for the people of our community. To succeed, we continue to be guided by the Quadruple Aim, a framework that helps us produce better health, better care, better cost, as well as a better colleague experience. Pharmacy Services continues to innovate, providing the highest level of pharmacy services to our patients through outstanding clinical services, and a distribution model that provides safety and efficiencies like no other.



The safety and quality performance across all sites continues to shine as we dispensed over **10,096,491** doses, and our LVHN harmful error rate was three errors per million doses dispensed. We provided clinical interventions on **76,038** orders that resulted in safer care and cost reductions of more than **\$608,775**. Our retail, infusion and specialty pharmacy divisions continue to grow financially while providing high-quality patient care and customer service. In fiscal year 2019, those divisions generated **\$9.5** million in operating income. Additionally, our alignment with the LVHN Health Plan continues to offer significant savings to the network.

I am honored to be part of such an exceptional team and am looking forward to another exciting year ahead.

Best Regards,  
Brian D. Lenich, RPh, MBA  
Administrator, Pharmacy Services

# LVHN INPATIENT PHARMACY SERVICES

INPATIENT PHARMACIES – ONE AT EACH OF OUR EIGHT HOSPITAL LOCATIONS IN PENNSYLVANIA



## LVHN HOSPITAL LOCATIONS

**Lehigh Valley Hospital license includes LVH–Cedar Crest, LVH–17th Street, LVH–Muhlenberg and LVHN–Tilghman.** LVH–Cedar Crest is ranked among the top 5 hospitals in Pennsylvania as noted in U.S. News & World Report’s Best Hospitals. These campuses serve communities in Lehigh, Northampton, Berks and Bucks counties in eastern Pennsylvania.

**Beds: 1,185**

### LVH–CEDAR CREST

- Level I Trauma Center
- Comprehensive Stroke Center
- Children’s ER
- Family Birth and Newborn Center
- Level IV NICU
- Regional Burn Center
- John and Dorothy Morgan Cancer Center

### LVH–MUHLENBERG

- Behavioral Health
- Primary Stroke Center
- Family Birth and Newborn Center
- Level II NICU
- Cancer Center at Lehigh Valley Hospital–Muhlenberg

### LVH–17TH STREET

- Community clinics
- Breast Health Services
- Sleep Disorders Center

### LVHN–TILGHMAN

- Center for Orthopedic Medicine
- ExpressCARE
- LVHN Surgery Center–Tilghman

### LVH–HAZLETON

**The former Greater Hazleton Health Alliance merged with Lehigh Valley Health Network (LVHN) in 2014.**

LVH–Hazleton serves communities in the Greater Hazleton area.

**Beds: 150**

- Level IV Trauma Center
- Gunderson Rehabilitation Center
- Primary Stroke Center
- Family Birth and Newborn Center
- LVHN Cancer Center–Hazleton

### LVH–SCHUYLKILL

**The former Schuylkill Health System merged with LVHN in 2016.**

LVH–Schuylkill serves Pottsville and surrounding communities in Schuylkill County.

**Beds: 189**

- Stine Acute Rehabilitation
- Advanced Wound Center
- Behavioral Health Services (senior, adult, adolescent)
- Family Birth and Newborn Center
- LVHN Cancer Center–Schuylkill

### LVH–POCONO

**The former Pocono Health System merged with LVHN in 2017.**

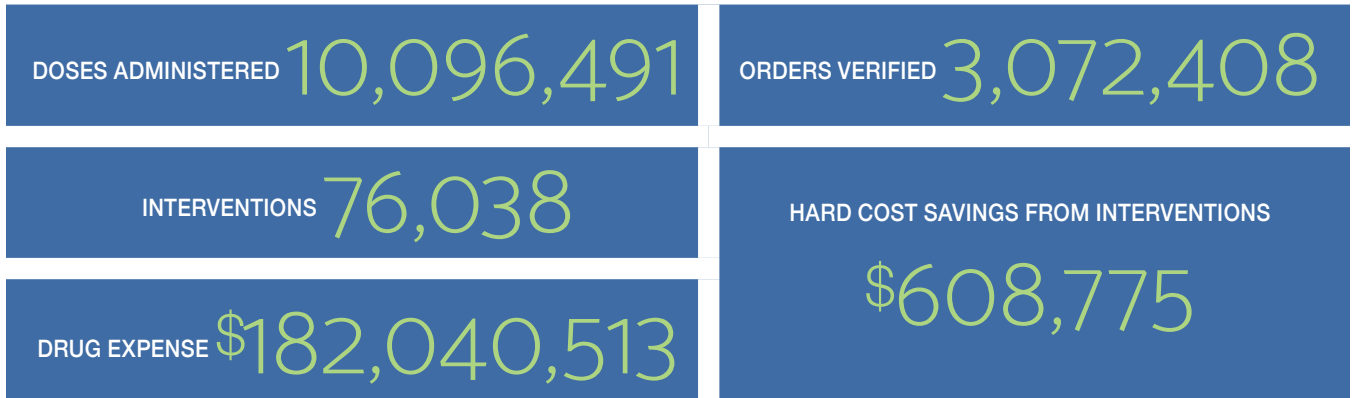
LVH–Pocono serves communities in Monroe County and the Pocono Mountain region.

**Beds: 249**

- Level III Trauma Center
- ESSA Heart and Vascular Center
- Level III NICU
- Dale and Frances Hughes Cancer Center
- Family Birth and Newborn Center

# FISCAL YEAR 2019 STATISTICS

INPATIENT PHARMACY DEPARTMENT VOLUME METRICS FOR LVH-CEDAR CREST, LVH-MUHLENBERG, LVH-17TH STREET, LVHN-TILGHMAN, LVH-HAZLETON, LVH-SCHUYLKILL AND LVH-POCONO



## HEALTH SPECTRUM PHARMACY SERVICES FISCAL YEAR 2019

**6** Health Spectrum Pharmacy Services Locations

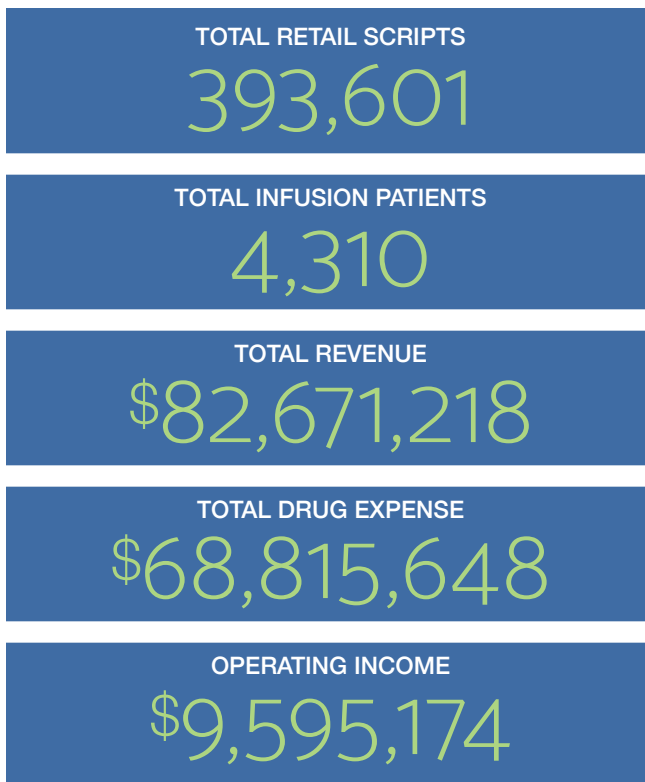
- Health Spectrum Pharmacy Services–Cedar Crest, 1202 S. Cedar Crest Blvd., Allentown
- Health Spectrum Pharmacy Services–17th Street, 1637 Chew St., Allentown
- Health Spectrum Pharmacy Services–Muhlenberg, 2545 Schoenersville Road, Bethlehem
- Health Spectrum Pharmacy Services–Pocono, 206 E. Brown St., East Stroudsburg
- Health Spectrum Pharmacy Services–Infusion, 2024 Lehigh St., Suite 500, Allentown
- Health Spectrum Pharmacy Services–Specialty Division, 2024 Lehigh St., Suite 600, Allentown



# FISCAL YEAR 2019 RETAIL AND SPECIALTY STATISTICS

## RETAIL PHARMACY DIVISION

**Health Spectrum Pharmacy Services** are located at LVH–Cedar Crest, LVH–17th Street, LVH–Muhlenberg and LVH–Pocono. In addition to filling and dispensing LVHN employee prescriptions, we also dispense medication to patients being discharged from our hospitals, our clinic patients and other members of our community. Services we offer include bedside prescription delivery, compliance packaging, free convenience shipping and adult immunization administration.



## SPECIALTY PHARMACY DIVISION

**Our specialty pharmacy team** works closely with LVHN specialists to obtain high-cost, high-touch medications for patients. Services offered by our specialty team include but are not limited to: prior authorization, appeal and financial assistance support, monthly patient compliance phone calls, on-site self-injectable teaching and compliance packaging. Our care team utilizes a care management system called TherigySTM to track patients' clinical outcomes. In FY19 we added a pharmacy coordinator to the specialty division, and transitioned to our new location at 2024 Lehigh Street.

## HOME INFUSION DIVISION

**Health Spectrum Pharmacy Services home infusion division** services patients in 13 counties in Pennsylvania and two counties in New Jersey. Therapies provided include but are not limited to: TPN, anti-infectives, chemotherapy, immunoglobulin, hemophilia factors, pain management and corticosteroids. Our team consists of pharmacists, nurses, financial coordinators, pharmacy technicians and delivery technicians, all with the goal of delivering high-quality, cost-effective services to patients in the comfort of their homes. Partnering with Lehigh Valley Home Care and other agencies, Health Spectrum's home infusion division provides the most up-to-date services and infusion devices to allow patients the freedom to continue their recovery and take charge of their care in the comfort of their homes.





## CANCER/AMBULATORY INFUSION CENTERS

**This past October, the Northern Tier (NT) Infusion Centers in Hazleton, Pocono and Schuylkill went live with Beacon, which is the oncology platform in EPIC.** Several of our pharmacists traveled to the NT sites for two weeks to help them with go-live to make it an easier transition. The staff at those sites did a great job of transitioning to Beacon from their legacy system. This year we added all the NT sites to our Oncology Therapeutics Meetings held monthly. This is a multidisciplinary committee that evaluates all new medications used in the outpatient setting or the inpatient oncology unit as well as any financial problems encountered by our team. By having the NT pharmacists and nurses on the committee, the Infusion centers have continuity of care if their patients travel from site to site. The infusion centers continue to increase in the number of visits they see annually. For FY19, the multipurpose area at Cedar Crest had 31,606 visits, multipurpose

satellite at Muhlenberg had 14,573 visits and multipurpose area at Bangor had 2,407 visits. Our outpatient visits increased about 10 percent over the previous year. Our NT colleagues also had increases in their visits as well. LVH-Hazleton had 2,686 visits, LVH-Pocono had 9,595 visits, and LVH-Schuylkill had 2,309 visits.

There also has been an increase in our clinical trial program. Currently our clinical trials office enrolls patients at Cedar Crest, Muhlenberg and Pocono. In FY19, 366 patients were accrued to trials from the National Cancer Institute, Memorial Sloan Kettering and Pharmaceutical Companies. We are part of the Memorial Sloan Kettering Cancer Alliance, which enables our patients to be on their trials but treated closer to home. Because of increased clinical trial volumes, an investigational drug pharmacist was hired to be in charge of all oncology clinical trials from a pharmacy perspective.

# 7

Outpatient  
Infusion Center  
Locations

- Infusion Services, John and Dorothy Morgan Cancer Center at Lehigh Valley Hospital-Cedar Crest
- Infusion Services, Cancer Center at Lehigh Valley Hospital-Muhlenberg
- Infusion Services, LVHN Cancer Center-Schuylkill
- Infusion Services, Dale and Frances Hughes Cancer Center at Lehigh Valley Hospital-Pocono
- Infusion Services, Health Center at Bangor
- Infusion Services, LVHN Cancer Center-Hazleton
- Infusion Services, LVPG Hematology Oncology-Lehighton

# EDUCATION

## POSTGRADUATE YEAR ONE (PGY1) RESIDENCY PROGRAM

The **LVHN program** has been accredited by the American Society of Health-System Pharmacists (ASHP) since 2007. Our program prepares pharmacists for clinical or teaching positions, or for PGY2 training in a community hospital setting. The program currently has preceptors who offer a broad range of learning experiences.

We would like to congratulate our 2019 graduates:

**Jasica Truong, PharmD**, clinical staff pharmacist, Lehigh Valley Health Network, Allentown, Pa.

**Jose Roman, PharmD**, clinical pharmacist, Tower Health – Reading, Pa.

## PHARMACY STUDENTS

**LVHN has student affiliation agreements in place** with five schools of pharmacy: Temple University School of Pharmacy, Thomas Jefferson College of Pharmacy, University of Rhode Island College of Pharmacy, University of the Sciences Philadelphia College of Pharmacy, and Wilkes University Nesbitt School of Pharmacy. In this last academic year, eight clinical specialists and administrators precepted 21 student rotations. Rotations offered included critical care, hospital/institutional, infectious diseases, internal medicine, oncology, and pediatrics. Six student interns were employed in the department in FY19.

Health Spectrum Pharmacy Services employed **10** pharmacy interns in FY19.

## ACCREDITATION COUNCIL FOR PHARMACY EDUCATION (ACPE)

**The Pharmacy Department is accredited** by the Accreditation Council for Pharmacy Education (ACPE) as a Provider of Continuing Pharmacy Education through Jan. 31, 2022.

LVHN Pharmacy Department sponsored nine ACPE activities accounting for **308** certificates and **39.1** CEU or 391 continuing education credit hours for pharmacy staff.

LVHN Pharmacy Department co-sponsored 11 ACPE activities accounting for **60** certificates and **15.45** CEU or 154.5 continuing education credit hours for pharmacy staff.

10

RETAIL  
PHARMACY  
INTERNS

9

ACPE  
ACTIVITIES  
SPONSORED

368

CERTIFICATES  
FOR PHARMACY  
STAFF

545.5

CONTINUING  
EDUCATION  
CREDIT HOURS



## MEDICATION SAFETY

**LVHN has a dedicated medication safety officer** who assists all health care professionals in the safe, efficient delivery of health care. The medication safety officer works with nursing, health care informatics, providers and ancillary health care professionals to keep the chance of hurting a patient due to medication error to about four in a million.

### IMPROVEMENTS THAT CONTRIBUTE TO THIS SAFETY LAYER INCLUDE:

- Continual quality management of hospital system to ensure the safety of our medication management systems.
- Cooperation with senior leadership and the Board of Trustees that propels LVHN's commitment to safety forward.
- Surveillance of controlled substance administration to strive for a system that prevents diversion and maintains the highest standard of medication availability.
- Supports the network's role in research as chairman of the Institutional Review Board.

## CLINICAL SERVICES

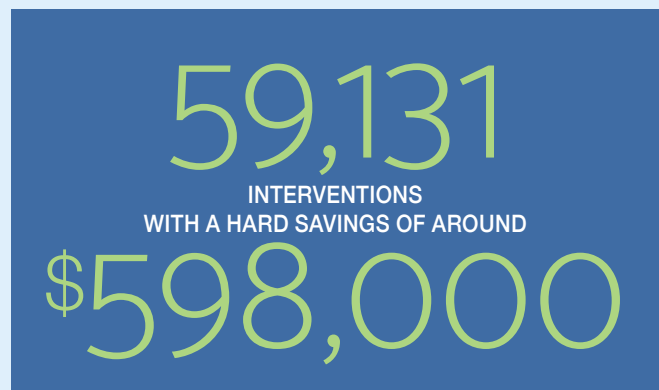
### CLINICAL PHARMACISTS

**LVHN pharmacists continue to be actively involved** in all areas of patient care at our hospitals and even some outpatient sites.

Rounding services with pharmacist participation support multiple rounding and teaching services with internal medicine, family medicine, critical care, cardiology, oncology, pediatrics, infectious disease and more.

- On the inpatient side, our pharmacists made 59,131 interventions with a hard savings of around \$598,000.
- LVHN pharmacists remain at the forefront, finding new ways to reduce costs and improve patient care while ensuring safe and effective medication use.

Additionally in FY19, our clinical specialists made formulary recommendations resulting in \$3,000,000 in annual savings.





## INPATIENT TECHNOLOGY

**Over the past year** colleagues spent a great deal of time planning and prepping for the LEAP implementation. The go-live was Oct. 1, 2019 for all of our Northern Tier hospitals.

This past year, we implemented just a few additional pyxis machines and codonics printers at the Cedar Crest site. However, staff has been involved in the first steps of determining our vendor of the future for automated dispensing machines. We visited Omnicell in Cranberry, Pa., and had both Omnicell and BD onsite to provide in-depth demos of their equipment and technologies. Next steps for this project are to send out requests for proposal (RFPs), and the goal is to have the vendor selected by spring of 2020.

The pharmacy's SwissLog dispensing robots at both LVH-Cedar Crest and LVH-Muhlenberg have gone through Phase 1 of a three-phase refurbishment this past year. Both will have Phase 2 completed in FY20.

Our outlook for FY20 will be busy with new technology implementations. We have plans to implement DispensePrep in our IV rooms. This will replace our current DoseEdge technology. We also are looking to implement a new code cart tray system, KitCheck, as well as a new floor inspection monitoring system, RxInspection. In addition, there are plans to work toward implementing Epic's inventory management System over the next year.

## HEALTH SPECTRUM TECHNOLOGY

**Health Spectrum Pharmacy Services continues to use technology** to leverage time and resources. To date, our interactive voice response (IVR) system has answered over 1.1 million phone calls, submitted **397,995** refills and recorded **90,781** voice messages, freeing time for colleagues to better serve the needs of patients.

Additionally, we utilize automation solutions from several different companies to assist in filling vials, counting pills, creating individualized medication packets and monitoring the overall workflow of our pharmacies.

As our network continues to grow, so will utilization of these systems to help us remain lean, efficient and focused on services we provide to our patients and community.



## MEDICAL SUPPLIES DIVISION

**Our medical supplies division** assists patients with items such as Jobst® vascular garments, diabetic supplies, post-mastectomy products, and wound, ostomy and breastfeeding supplies. As a Board of Certification/Accreditation (BOC)-accredited facility, our division's certified fitters ensure patients' orthotic products fit properly.

## BILLING AND ACCOUNTS RECEIVABLE

**The billing department** of Health Spectrum Pharmacy Services consists of five dedicated employees who have taken ownership of billing and collection responsibilities. The past fiscal year has been the strongest to date. Using cash collections as a barometer for success, the billing department has not disappointed. This year the billing department collected **\$103 million** in receivables. Another nationally accepted standard for measurement is average days sale outstanding (DSO). In this category, the department falls below the national average for this business type. Home infusion DSO is currently at **46.39** with industry average at 68. Retail, which includes home medical equipment (HME), is **12.39**. There is no published industry average for this type of hybrid combination of retail and HME, but compared to what we know about HME, it also falls below industry average.



## INTEGRATED CARE COORDINATION – POPULATION HEALTH

**The Integrated Care Coordination (ICC) Clinical Pharmacy Team** continues to provide comprehensive medication management through referrals from providers and team members for high-risk patients with frequent hospitalizations or chronic conditions such as diabetes, heart failure and COPD. In FY2019, we received **1,590** referrals, worked with **1,531** unique patients and made **2,387** interventions. These interventions were associated with a cost-avoidance of approximately \$784,600.

We are currently working out of four clinic spaces – Health Spectrum Pharmacy–Cedar Crest, LVHN Express Care–Muhlenberg, Lehigh Valley Health Center at Palmer Township and Lehigh Valley Health Center at Fogelsville. These centralized locations provide patients with increased access to pharmacy services across the Lehigh Valley.

ICC pharmacists continue to provide medication therapy management (MTM) services for qualifying Highmark Medicare Advantage patients. In FY19, we completed comprehensive medication reviews for 115 of patients attributed to our eight assigned LVPG practices. We adjusted our workflow to complete these medication

reviews prior to scheduled appointments, and have seen great success, earning the maximum of a 5 STAR rating for Medicare. Of the MTM encounters that the team completed, we made **254** interventions, which equates to a cost avoidance of over **\$91,798.70**.

After a successful pilot, the team has expanded a collaborative drug therapy management agreement for adult patients with uncontrolled type 2 diabetes to four more practices. Through this agreement, ICC pharmacists have the ability to modify drug regimens to help patients reach their intended therapy goals (e.g., hemoglobin A1c). Data for fiscal year 2019 shows a total of **69** referrals received from **5** practices, with **47** patients enrolling in the program. Patients have an average A1c of **9.8%** at enrollment and the program has demonstrated an average A1c reduction of **2.4%** in managed patients and **1.6%** in the total population. Laura Mauro will be presenting a poster at the Society of Teachers of Family Medicine Conference on Practice and Quality Improvement with Frank Sperrazza, DO, in Phoenix, Ariz. this December. Data collection is ongoing, and we look forward to continued expansion of this program.

## COMMUNITY ACTIVITIES

- Angel 34 Event
- Bethlehem Medical Reserve Corps (MRC)
- Blue Jean Blitz for Perfect Fit
- Family Promise of Lehigh Valley
- Four Diamonds for Pediatric Cancer Research (St. Jane's/Our Lady of Perpetual Help charity basketball game)
- Girl Scouts
- Lowhill Township Food Pantry donated turkeys
- LVHN Community Flu Campaign 2018
- Scrub collection for Perfect Fit
- Street Medicine
- United States Naval Academy Parents' Club of the Lehigh Valley
- Via Marathon Volunteer Walks/Runs Participation
- FitBit Walk
- Greater Allentown Apraxia Walk (sponsored by Lehigh Valley Reilly Children's Hospital)
- March of Dimes
- Quadzilla 15K Trail Race
- Women's 5K Classic for Breast Cancer Survivors

## AWARDS/ NOMINATIONS

**Matthew Fair** - Friends of Nursing Award

Other nominees from the Pharmacy Department for Friends of Nursing were:

**Darlene Bjelobrck**

**Lauren Madea**



# STRATEGIC PLAN FOR FISCAL YEAR 2020

**Pharmacy Services remains driven to do more in support of our mission to heal, comfort and care for the people of our community.** To succeed, we are guided by the Quadruple Aim, a framework that helps us produce better health, better care, better cost and a better colleague experience.

## HOSPITAL CONSUMER ASSESSMENT OF HEALTHCARE PROVIDERS AND SYSTEMS (HCAHPS)

- Focus on improving “Medication Related Scores”
- Continue to implement impactful pharmacy strategies

## COLLEAGUE ENGAGEMENT

- Review Fiscal Year 2019 survey results with colleagues
- Gather ideas to advance the colleague experience
- Develop department action plans around those ideas

## STERILE COMPOUNDING

- Review new USP 797/800 guidelines
- Develop a gap analysis
- Develop plan to close the gap

## CEDAR CREST EMERGENCY DEPARTMENT EXPANSION

- Help design the Cedar Crest Emergency Department expansion to ensure efficient pharmacy workflow
- Establish emergency medicine clinical specialist within the department

## CHILDREN’S HOSPITAL

- Expansion, relocation and consolidation to centralize inpatient pediatric services within Jaindl Pavilion including a complete renovation of fifth floor of Jaindl Pavilion to accommodate pediatric inpatient units located in Pool 4B and 4C units.
- Design a full services pediatric pharmacy with unit dose and clean room capabilities to service Lehigh Valley Reilly Children’s Hospital

## TECHNOLOGY

- Implement Epic’s Willow Inventory
- Implement Epic’s Dispense Prep IV room workflow technology
- RFP for a Pyxis upgrade or Omnicell conversion
- Implement KitCheck’s automated medication tray and cart management system

## THERAPEUTICS

- Continue to integrate all hospitals formularies into one health-system formulary
- Continue to drive impactful value-based reductions in overutilization

## MUHLENBERG PHARMACY CLEANROOM EXPANSION

- Expand Muhlenberg inpatient pharmacy to maintain compliance with new USP 797/800 regulations
- Continue operations during construction
- Installation and implementation of Swisslog BoxPicker

## 340B PHARMACY OPERATIONS

- Maximize 340B savings opportunities by continuing to pursue 340B-like pricing made available by manufacturers to RRC-designated facilities
- Establish policies, processes and compliance protocols that apply 340B principles on a network-wide basis
- Work with other 340B stakeholders, network-wide, toward adopting AHA’s 340B Good Stewardship Principles
- RFP for one health system third-party auditor

## SPECIALTY AND RETAIL PHARMACY DIVISION

- Meet and exceed year Specialty Pharmacy Business Plan
- URAC Accreditation of Specialty Pharmacy
- Continue to work on expansion of HSPS – 17th and Chew
- Implement bedside delivery program in Cedar Crest ED

## HOME INFUSION DIVISION

- Optimize efficiency at new 2024 Lehigh Street location
- Continue to explore alternate site of care infusion options for LVHN

## ALLSPIRE GROUP PURCHASING ORGANIZATION

- Utilize HealthTrust and AllSpire Pharmacy Collaborative to drive savings
- Utilize AllSpire Pharmacy Clinical Collaborative Meetings to continue sharing best practices

# INTEGRATED STRATEGIC PLAN

## HAZLETON

- Continue to design Hazleton Airport Road Health and Wellness Campus
- Complete renovation of the Emergency Department
- Continue to design Health Spectrum Pharmacy Service –Hazleton
- Epic conversion

## SCHUYLKILL

- Install QS/1 for employee prescription plan
- Design a Health Spectrum Pharmacy Services–Schuylkill
- Upgrade cleanroom to meet USP 797/800 regulations
- Epic conversion

## POCONO

- Pump and fluid conversion to B. Braun
- Continue to design Pocono-West hospital
- Epic conversion



# PHARMACY SERVICES STAFF

LOCATION	POSITION	FTE
Hazleton	Pharmacists	10
	Pharmacy Techs	9.4
		<b>19.4</b>
Schuylkill	Pharmacists	11.84
	Pharmacy Techs	8.3
	Interns	0.04
	Additional Staff	1
		<b>21.18</b>
Pocono	Pharmacists	19
	Pharmacy Techs	15
	Interns	3
	Additional Staff	1
		<b>38</b>
Muhlenberg	Pharmacists	13.35
	Pharmacy Techs	14.54
	Interns	1.15
	Other	3.01
		<b>32.05</b>
MPA	Pharmacists	8.25
	Pharmacy Techs	6.81
		<b>15.06</b>
Cedar Crest	Pharmacists	48.8
	Pharmacy Techs	49.24
	Interns	2.3
	Other	11.55
	Other (mgmt.)	5
		<b>116.89</b>

LOCATION	POSITION	FTE
HSPS Retail	Pharmacists	16.43
	Pharmacy Techs	25.91
	Interns	0.1
	Medical Supply Specialists	3.61
	Additional Staff	2
		<b>74.53</b>
HSPS Specialty	Pharmacists	2
	Pharmacy Techs	3
	Additional Staff	1
	<b>6</b>	
HSPS Home Infusion	Pharmacists	4
	Pharmacy Techs	2.01
	Nurse Clinicians	2
	Delivery Tech	4.41
	Patient Services Coordinator	1
	Financial Coordinators	2
	<b>15.42</b>	
HSPS Billing	Accounts Receivable Specialists	2.01
	Financial Coordinators	2
	Additional Staff	3
		<b>7.01</b>
LVMS	Medical Supplies Specialists	<b>2</b>





# PRESENTATIONS/PUBLICATIONS/POSTERS

## PUBLICATIONS

### Joseph Ottinger

- **Ottinger, Joseph**, Review of Antiplatelet Strategies in the Treatment of ST-Elevation MI (STEMI) and Other Oddities Related to the Care of STEMI. 0.2 CEU ACPE accredited education for Lehigh Valley Health Network (LVHN) Pharmacists, July 2018
- **Ottinger, Joseph**, Heart Failure Care Pathway Review. 0.1 CEU ACPE accredited education for LVHN Pharmacists, November 2018

## PRESENTATIONS

### Bonny Brownstein, Elizabeth Shober

- Fluid and Electrolytes in Neonates. Presented to LVHN Pediatric Pharmacist Team, Cedar Crest and Muhlenberg, Pa., January and February 2019, respectively

### Janine Barnaby

- Four- part series on chemotherapy regimens and supportive drugs to Hematology/Oncology Fellows
- Presented Chemotherapy, Biotherapy and Supportive Medications in the Oncology Core Course for nurses and other clinical staff throughout year
- Presented snapshot of Beacon to Northern Tier hospitals in conjunction with I/S

### Emily Herman, Katie Nesbitt

- Diabetic Ketoacidosis in Pediatrics. Presented to LVHN Pediatric Pharmacist Team, Cedar Crest, Allentown, Pa., February 2019

### Jarrold Kile

- Courtney Landis, Amy Slenker, MD, **Jarrold Kile, RPh, BCPS**, Luther Rhodes, MD, Assessment of the Characteristics of Multidrug Resistant Organisms at Lehigh Valley Health Network: Where do they come from and where do they go? LVHN Research Summer Scholar Program, Allentown, Pa., August 2019
- Olivia Morren, Amy Slenker, MD, **Jarrold Kile, RPh, BCPS**, Assessment of the Real-World Use of Procalcitonin at a Large Academic Institution, LVHN Research Summer Scholar Program, Allentown, Pa., August 2019

- Kristi M. Kuper, PharmD, BCPS , Jerod L. Nagel, PharmD, BCPS (AQID) , **Jarrold W. Kile, RPh, BCPS**, Larissa S. May, MD, MSPH, MSHS, and Francesca M. Lee, MD. The Role of Electronic Health Record and “Add-on” Clinical Decision Support Systems to Enhance Antimicrobial Stewardship Programs. Infection Control and Hospital Epidemiology, doi.org/10.1017/ice.2019.51
- Mark C. Knouse, MD, Terri I. Langham, RN, Marcelo Gareca, MD, and **Jarrold W. Kile, RPh, BCPS**, Experience of an Infectious Diseases (ID) Travel Medicine Clinic During a National Shortage of Yellow Fever Vaccine (YFV). Presented at 16th Conference of the International Society of Travel Medicine, Washington, D.C., June 5-9, 2019
- Jose Alejandro Roman, PharmD, **Jarrold Kile, RPh, BCPS**, Amy Slenker, MD, Hope Kincaid, MPH, CPH, Shae Duka, BS, Retrospective Analysis of Demographic Information Across Antiretroviral Regimens for Adult Patients with Human Immunodeficiency Virus. Presented at ASHP Mid-year, Anaheim, Calif., Dec. 2-6,2018

### Jason Laskosky

- **Laskosky, Jason**, Analgesic Prescribing in the Postoperative Setting lecture to surgical residents, Feb. 19, 2019

### Jeanette Moyer, Kathryn Walker

- Pediatric Code Attendance: A Pharmacy Perspective Presented to LVHN Pediatric Pharmacist Team, Cedar Crest, Allentown, Pa., April 2019

### Joseph Ottinger

- **Ottinger, Joseph**, Annual Antibiotic Review in Basic Dental Practice. Presented to LVHN Dental Clinic residents, Allentown, Pa., Aug. 8, 2018
- **Ottinger, Joseph**, Annual Pain Management Strategies in Dental Medicine. Presented to the LVHN dental residents, Allentown, Pa., Aug 8, 2018

### Jessica Price

- Impact of New Antidiabetic Medications on Cardiovascular Outcomes
  - Presentation to pharmacists, ACPE 0.5 contact hour, LVHN, April 5, 2019
  - Presentation. ACPE 0.5 contact hour, March CE Madness 2019, Continuing Education Symposium, Conshohocken, Pa., March 13, 2019
  - Presentation to diabetes educators, LVHN, April 17, 2019
- Short and Sweet: Concentrated Insulins and Safe Transitions
  - Presentation to LVHN medical residents, LVHN, Nov. 7, 2018
  - Presentation to pharmacists, ACPE 0.5 contact hour, LVHN,; Dec. 28, 2018, Jan. 9, 2019, Jan. 11, 2019
- Side Effects of Antidepressants, Antipsychotics, Mood Stabilizers,
  - Behavioral Health nursing staff, LVHN, March 18, 2019, June 11, 2019
- Side Effects of Psychiatric Medications. Monthly education to Behavioral Health patients

### Jose Roman

- Longitudinal Care Seminar Course Instructor, Wilkes University Nesbitt School of Pharmacy – August 2018
- Overview of MMR vaccination to LVPG Infectious Diseases staff, September 2018
- Antibiotics Lecture, Family Medicine residents, October 2018
- Drug Reaction With Eosinophilia and Systemic Symptoms, October 2018
- Education on inhaler medications and technique, Pulmonary Rehabilitation, October 2018, April 2019
- Pyridoxine Dependent Epilepsy Management in a Pediatric Population, November 2018
- Overview of Legionnaire's Disease to LVPG Infectious Diseases staff, March 2019
- Inpatient Hyperglycemia to Family Medicine residents, March 2018

- Retrospective Analysis of Demographic Information Across Antiretroviral Regimens for Adult Patients With Human Immunodeficiency Virus, Eastern States, April 2018
- Retrospective Analysis of Demographic Information Across Antiretroviral Regimens for Adult Patients With Human Immunodeficiency Virus, MEPSHP Night of the Residents, May 2018
- A Stroke of Luck: A review of the 2018 ACC/AHA guidelines for acute ischemic stroke, May 2018
- Use of tranexamic acid for intracranial hemorrhage associated with use of IV alteplase, June 2018
- Aztreonam use in adult inpatients to the antimicrobial stewardship committee, June 2018

### Jasica Truong

- Antibiotics lecture, Family Medicine residents, October 2018
- 2018 cholesterol clinical practice guidelines: statins for everybody?, November and December 2018
- Inpatient hyperglycemia management lecture, Family Medicine residents, March 2019
- Medication use evaluation: standard vs. rapid infliximab infusion in pediatrics, Pharmacy and Therapeutics Committee, April 2019
- Meningococcal vaccinations, LVPG Infectious Diseases staff, April 2019
- Characterization of antibiotic use for acute otitis media in pediatric physician practices, Eastern States, April 2019
- Characterization of antibiotic use for acute otitis media in pediatric physician practices, Night of the Residents, May 2019
- Neurostorming in patients with severe traumatic brain injury, May 2019
- Longitudinal Care, course instructor, Nesbitt School of Pharmacy, Wilkes University, August 2018 to May 2019
- Refractory chemotherapy-induced nausea and vomiting in pediatrics and adults, June 2019
- Education on inhaler medications and technique, Pulmonary Rehabilitation, July 2018 and June 2019

### Kristin Held Wheatley

- Antimicrobial Stewardship: Combatting Overuse of the Term Allergy, Pediatric Nurses, March 2019
- Antibiotics II, Pediatric Medical residents, PediaPred lecture series, December 2018
- CFTR modulators – Rash Incidence and Drug-Drug Interactions, Pediatric Pulmonology, November 2018
- Antibiotics I, – Pediatric Medical residents, PediaPred lecture series, October 2018
- Hematology/Oncology, Pediatric Pharmacy Advocacy Group Fall BCPPS Review and Recertification, Philadelphia, Pa., September 2018
- When Bisphosphonates Fail: A Case of Refractory Hypercalcemia of Malignancy, Pediatric Pharmacy Advocacy Group Fall Specialty Meeting – Hematology/Oncology, Philadelphia, Pa., September 2018

### POSTERS

#### Adam Castro

- “Assessing Newlinnovation Impact of the DoseEdge® IV Workflow System in a Community Hospital,” PSHP

#### Elie Jabbour

- Fair M., Omari-Okyere M., **Jabbour E.**, Frutos B., Biery N., Dec. 2, 2018, “Pharmacist Interventions Involving Patient Outreach: Early Findings of Patient Outcomes in Older Adults,” American Society of Health-System Pharmacists (ASHP) Midyear Meeting and Exhibition, Anaheim, Calif.

#### Jose Roman

- “Retrospective Analysis of Demographic Information Across Antiretroviral Regimens for Adult Patients With Human Immunodeficiency Virus,” Slenker, Duka, Kincaid, Kile, American Society of Health-System Pharmacists Midyear Clinical Meeting and Vizient Consortium, Anaheim, Calif., December 2018

#### Jasica Truong

- **Truong**, Wheatley, Macfarlan, Villalobos-Fry, “Characterization of Antibiotic Use for Acute Otitis Media in Pediatric Physician Practices,” Vizient Consortium Pharmacy Network and American Society of Health-System Pharmacists Midyear Clinical Meeting, Anaheim, Calif., December 2018

### Kristin Held Wheatley

- Truong J., **Wheatley K.H.**, Macfarlan J., Villalobos-Fry T., “Characterization of Antibiotic Use for Acute Ptitis Media in Pediatric Physician Practices,” American Society of Health-System Pharmacists Midyear Clinical Meeting, Anaheim, Calif., December 2018
- Schaffer M., Villalobos-Fry T., **Wheatley K.H.**, “Evaluation of the Microbiology of Intraabdominal Abscesses in Children and Implications for Treatment and Outcomes,” Research Day, Lehigh Valley Health Network, Allentown, Pa., August 2018

### JOURNAL CLUB

#### Jose Roman

- Zosyn bolus vs. extended administration, October 2018
- Overview of the MARINER trial, October 2018

#### Jasica Truong

- Baloxavir for the flu?, November 2018

### PEARLS

#### Jose Roman

- Strongyloidiasis overview ,August 2018
- Empagliflozin use in type 1 diabetes, October 2018
- Hypertonic saline use for traumatic brain injury, April 2018

#### Jasica Truong

- Perseris (risperidone) ER injectable suspension, August 2018
- Levocarnitine for valproic acid toxicity, August 2018
- C. Diff-erences in the diagnosis and treatment of Clostridium difficile in children and adults, Vizient Pediatric Pearl, September 2018
- Wernicke encephalopathy, November 2018
- Antithrombotic management post-TAVR, June 2019

### Kristin Held Wheatley

- Blinatumomab, Clinical Staff Pharmacists, January 2019

