

2016

PHARMACY SERVICES
ANNUAL REPORT 2016



TABLE OF CONTENTS

| | |
|---|----|
| Message from Brian D. Lenich | 3 |
| Lehigh Valley Health Network (LVHN) Pharmacy Services | 4 |
| Fiscal Year 2016 Statistics | 5 |
| Retail Pharmacy Division | 6 |
| Specialty Pharmacy Division | 6 |
| Home Infusion Division | 6 |
| Lehigh Valley Hospital (LVH)–Cedar Crest, LVH–17th Street and LVHN–Tilghman | 7 |
| LVH–Muhlenberg | 7 |
| LVH–Hazleton | 7 |
| Cancer/Ambulatory Infusion Centers | 8 |
| Medical Supplies Division | 9 |
| Billing and Accounts Receivable | 9 |
| Education | 10 |
| Medication Safety and Medication Reconciliation | 11 |
| Clinical Services | 12 |
| Technology | 13 |
| Epic | 14 |
| Community Care Team | 15 |
| Awards/Nominations | 15 |
| Strategic Plan for 2017 | 16 |
| Community Service Activities | 17 |
| Publications/Presentations | 18 |

GREETINGS FROM THE ADMINISTRATOR

I am honored to present the FY16 Annual Report for Pharmacy Services. As health care undergoes a nationwide transformation, we remain driven to do more in support of our mission to heal, comfort and care for the people of our community. To succeed, we continue to be guided by the Triple Aim, a framework that helps us produce better health, better care and better cost. 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.



We kicked off the year with the conversion of Lehigh Valley Health Network's electronic medical record system at four of our hospital locations – Lehigh Valley Hospital (LVH)–Cedar Crest, LVH–17th Street, LVH–Muhlenberg and LVHN–Tilghman – from GE Healthcare's Centricity to Epic. On Friday, July 31, 2015, more than **40** pharmacists and **25** physician assistants worked all day and into the early hours of the following day to enter more than **20,000** medication orders into Epic. At 5 a.m. on Aug. 1, 2015, the first medication order was entered into Epic, beginning a new era of health information at LVHN. We continue to work closely with the Epic team and other network departments to optimize the system to provide a higher level of care for our patients.

The safety and quality performance across all sites continues to shine as we administered **6,986,815** doses, and our network harmful error rate was two errors per million doses. We provided clinical interventions on **75,763** orders that resulted in safer care and cost reductions of more than **\$563,844**. Our retail, infusion and specialty pharmacy divisions continue to grow financially while providing high-quality patient care and customer service. In fiscal year 2016, those divisions generated over **\$6.5** million in operating income. Additionally, our alignment with the Choice Plus Health Plan continues to offer significant savings to the network.

As we begin FY17 we look forward to the merger and integration with Schuylkill Health System and other potential new entities. Thank you for supporting Pharmacy Services, and I look forward to another exciting year ahead.

Best Regards,

Brian D. Lenich

Administrator, Pharmacy Services

LVHN PHARMACY SERVICES

INPATIENT PHARMACIES - ONE AT EACH OF OUR FIVE HOSPITAL LOCATIONS

3 in Allentown, Pa.
▶ LVH-Cedar Crest
▶ LVH-17th Street
▶ LVHN-Tilghman

1 in Bethlehem, Pa.
▶ LVH-Muhlenberg

1 in Hazleton, Pa.
▶ LVH-Hazleton



FISCAL YEAR 2016 STATISTICS

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

DOSES ADMINISTERED

6,986,815

ORDERS VERIFIED

2,578,888

INTERVENTIONS

75,763

HARD COST SAVINGS FROM INTERVENTIONS

\$563,844

DRUG EXPENSE

\$119,476,217



HEALTH SPECTRUM PHARMACY SERVICES FISCAL YEAR 2016

| RETAIL PHARMACY DIVISION | | | | | | | | |
|--------------------------|------------------------------|---------------------------------|-----------------------------------|--|-----------------------------|--------------------------------|--------------|------------------|
| Number of Prescriptions | Number of Bedside Deliveries | Number of Shipped Prescriptions | Board-Certified Pharmacist (SPBC) | Number of Pharmacists Certified to Administer Vaccinations | Certified Diabetic Educator | BOC-Certified Orthotic Fitters | Net Revenue | Operating Income |
| 378,398 | 480 | 24,448 | 1 | 15 | 1 | 5 | \$48,700,826 | \$ 3,657,518 |

RETAIL PHARMACY DIVISION

Health Spectrum Pharmacy Services are located at LVH–Cedar Crest, LVH–17th Street and LVH–Muhlenberg. 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** | | | | |
|-------------------------------|--|------------------------------|--------------|--------------|
| Number of Prescriptions | Specialty Patients Enrolled in Therapy | Financial Assistance Secured | Net Revenue | Gross Margin |
| 15,644 | 187 | \$155,222 | \$28,497,100 | \$3,550,935 |

** Specialty numbers are broken out of the retail data.

SPECIALTY PHARMACY DIVISION

Our specialty pharmacy division launched this fiscal year. Our 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 team utilizes a care management system called TherigySTM to track patients' clinical outcomes. Our program is currently seeking specialty pharmacy accreditation through the Community Pharmacy Practice Accreditation (CPPA).

| INFUSION DIVISION | | | | |
|--------------------|----------------------|------------------------|--------------|------------------|
| Number of Patients | Number of Deliveries | Number of Miles Driven | Net Revenue | Operating Income |
| 3,921 | 9,461 | 95,957 | \$10,249,692 | \$2,904,624 |

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.



LVH-CEDAR CREST, LVH-17TH STREET AND LVHN-TILGHMAN

Lehigh Valley Hospital license includes LVH-Cedar Crest, LVH-17th Street and LVHN-Tilghman. These locations combined have 890 licensed beds.

LVH-Cedar Crest: LVH-Cedar Crest is a Level 1 Trauma Center and offers a complete continuum of care from emergency services to surgery, to acute and sub-acute care, to rehabilitation.

LVH-Cedar Crest offers the region's only children's emergency department and also offers outpatient care services.

In 2016, Lehigh Valley Hospital ranked among the nation's top hospitals on U.S. News & World Report's Best Hospitals list for the 20th consecutive year. Lehigh Valley Hospital is ranked the No. 3 hospital in Pennsylvania.

LVH-17th Street: LVH-17th Street hosts these services and more: short-stay hospital (elective and ambulatory surgery), Fairgrounds Surgical Center, Community Health and Wellness Center, community clinics, HIV/AIDS and hepatitis care, hospice, Breast Health Services, Sleep Disorders Centers and the Fleming Memory Center. LVH-17th Street is a hub of community wellness.

LVHN-Tilghman: The Center of Orthopedic Medicine-Tilghman includes a state-of-the-art orthopedic campus.

LVH-MUHLENBERG

LVH-Muhlenberg has 196 licensed beds and features all-private inpatient rooms and a vast array of health care services. Services include: Breast Health Services, LVH-Muhlenberg Cancer Center, heart and vascular care, diagnostic services, rehabilitation, dental clinic, pediatric ambulatory surgery unit, adolescent psychiatry, Behavioral Health Science Center, emergency room and critical care. LVH-Muhlenberg is ranked No. 10 in the state by U.S. News & World Report's Best Hospitals list.

LVH-HAZLETON

LVH-Hazleton, formerly Hazleton General Hospital, has 150 beds and provides inpatient acute care, rehab care at Gunderson Rehabilitation Center, emergency care, maternity and home care. It was the first accredited Primary Care Stroke Center in northeast Pennsylvania. LVH-Hazleton is also an accredited Chest Pain Center and a Bariatric Surgery Center of Excellence.



CANCER/AMBULATORY INFUSION CENTERS

Outpatient infusion services encompasses three locations, each with its own pharmacy. The multipurpose area (MPA) pharmacy at LVH–Cedar Crest operates with three pharmacists and three technicians Monday–Friday and one pharmacist and one technician on Saturday. The multipurpose satellite (MPS) at LVH–Muhlenberg operates with two pharmacists and one technician Monday–Friday and is closed on Saturday; multipurpose area at Bangor (MPB) operates with one pharmacist and a part-time technician Monday–Friday and is closed on Saturday. Pharmacists at infusion locations review each patient’s treatment regimen for allergies, laboratory results and other diagnostic tests required for certain medications. They then make recommendations based on these factors to ensure the appropriate treatment regimen and dose is being safely administered to patients. Pharmacists are also a vital source of drug education for both the nursing and physician staffs. Their on-site availability also provides patients with the opportunity to have drug-related questions/concerns answered face to face. The pharmacy is involved in more than 100 clinical trials, for which we are responsible for preparation, storage and accountability of the medication. Our outpatient infusion pharmacy staff is a vital part of the patient’s treatment team, ensuring appropriateness of therapy, correct dosing and sterile preparation of medications, and follow-up throughout the treatment regimen for adverse reactions, side effects and continuity of care from cycle to cycle and from site to site.



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 certified fitters ensure our patients' orthotic products fit properly.

BILLING AND ACCOUNTS RECEIVABLE

The billing department of Health Spectrum Pharmacy Services consists of six 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. Previous department collection highs were exceeded three times throughout the year and most recently collected \$6.47 million. Before this year the highest collection total was \$5.6 million.

Another nationally accepted standard for measurement is average DSO (days sales outstanding). In this category the department falls below the national average for this business type. Home infusion DSO is currently at 48.76 with industry average between 85 and 87. Retail, which includes HME (home medical equipment), is as low as 6.3 at LVH–Cedar Crest and as high as 15.92 at LVH–17th Street. 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.

48.76
HOME INFUSION DSO

437

CONTINUING EDUCATION CREDIT
HOURS FOR PHARMACY STAFF

EDUCATION

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, teaching and entry-level management positions, or for PGY2 training in a community hospital setting. The program currently has 14 preceptors covering a broad range of required and elective learning experiences.

We would like to congratulate our 2016 graduates:

- ▶ Marissa Csovelak – Clinical staff pharmacist at PinnacleHealth, Harrisburg, Pa.
- ▶ Samantha Spishock – PGY2 pharmacy residency in pediatrics at Rutgers University, Piscataway, N.J.

We matched both residency positions for the upcoming year:

- ▶ Aubrey Goertel, Duquesne University, Pittsburgh, Pa.
- ▶ Breana Goscicki, Northeastern University, Boston, Mass.

PHARMACY STUDENTS

LVHN has student affiliation agreements in place with four schools of pharmacy:

- ▶ Temple University School of Pharmacy
- ▶ Thomas Jefferson College of Pharmacy
- ▶ University of the Sciences Philadelphia College of Pharmacy
- ▶ Wilkes University Nesbitt School of Pharmacy

Twelve preceptors offered 51 student rotations in this last academic year, resulting in 24 student rotations with 11 preceptors. Rotations offered included critical care, hospital/institutional, infectious diseases, internal medicine, medication safety, oncology, pediatrics and pediatric oncology/infectious diseases. Eighteen pharmacy student interns were employed in the department in FY16, with four graduating from pharmacy school and entering residency programs.

ACCREDITATION COUNCIL FOR PHARMACY EDUCATION (ACPE)

LVHN hosted seven ACPE sessions accounting for 277 certificates and 43.7 continuing education units (CEU) or 437 continuing education credit hours for pharmacy staff.

LVHN co-sponsored (joint providership) four ACPE sessions accounting for 31 certificates and 4.1 CEU or 41 continuing education credit hours for pharmacy staff.



MEDICATION SAFETY AND MEDICATION RECONCILIATION

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 two in a million.

RECENT SAFETY IMPROVEMENTS THAT CONTRIBUTE TO THIS SAFETY LAYER INCLUDE:

- ▶ Smart infusion devices and tailoring the library to meet needs of changing health care environment.
- ▶ Implementation of Pyxis Anesthesia systems and Codonics printers for safe medication administration.
- ▶ Continual quality management of hospital system to ensure the safety of our information 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.

Medication reconciliation continues to challenge the hospital every day. Patients enter our network with fragmented medication lists that challenge our providers. In one audit, we determined that 98.5 percent of our patients enter the network with at least one error in their medication information. Nursing struggles to combat this misinformation on a daily basis. To assist nurses, medication reconciliation technicians (MRT) use knowledge, training and investigational skills to collect and create medication lists as close to accurate as possible. When discrepancies arise, staff uses primary source verification as a tool to address these discrepancies. While it takes MRTs on average 18 minutes to complete the process, their error rate of 0.9 percent is much lower than a national benchmark of 54 percent published in 2010. LVHN's six MRTs performed reconciliations on approximately 13,000 patients in FY16.





CLINICAL SERVICES

CLINICAL PHARMACISTS

- ▶ Inpatient pharmacists rotate team responsibilities in a decentralized setting on patient care units
- ▶ Satellite pharmacies in operating suite
- ▶ Outpatient infusion centers
- ▶ 23 board-certified pharmacists

LVHN pharmacists continued to increase presence in various direct patient care activities including participation with patient care rounds. In addition to six clinical pharmacy specialists practicing in pediatrics, infectious diseases, cardiology, general internal medicine, critical care and pediatric infectious diseases, clinical staff pharmacists are becoming increasingly engaged in direct patient care. Rounding services with pharmacist participation now include an internal medicine teaching service, hospitalist rounding service, inpatient rehabilitation service, intensive cardiac care, trauma intensive care, burn intensive care, medical intensive care, pediatric intensive care, neonatal intensive care, pediatric infectious disease and family medicine. Most recently, a clinical pharmacy specialist practicing in adult oncology and charged to lead a growing number of medication research trials joined the pharmacy team. Clinical pharmacists also provide service to numerous outpatient clinics including a children's complex care clinic, pediatric cystic fibrosis clinic, pediatric hematology/oncology clinic and an adult infectious diseases clinic.

In addition to direct patient care activities, pharmacists engaged in multiple network-wide care initiatives including improving VTE prophylaxis, sepsis care and antimicrobial stewardship to name a few. As part of clinical rounds, order verification review/clarification and responses to drug information requests, pharmacists documented 75,763 interventions this past year. All totaled, these interventions translated into hard cost savings of more than \$563,844. As it pertains to attempting to ensure that safe, effective medications are available for patients, the pharmacy and therapeutics committee reviewed more than five dozen medications for formulary addition or removal.

Drug shortages continued to be a challenge over the past year with shortages ranging from antibiotics to chemotherapeutics to vasopressors to even IV fluids. On average, 10-20 drugs at any given time were on shortage with potential to impact care provided at LVHN. Pharmacy staff worked to identify potential patient populations affected, identify and secure therapeutic alternatives, provide timely education on new products, and ensure appropriate systems were instituted

to minimize potential safety issues that drug formulation and/or therapeutic alternatives might pose.

Lastly, Epic transition loomed large in the world of clinical pharmacy with every order set including medication orders requiring evaluation for best evidence and formulary adherence. Altogether, more than 300 order sets were reviewed.

The inpatient counseling project continues to grow and is showing much improvement in the "Communication About Medications" domain of HCAHPS scores.

- ▶ At LVH–Cedar Crest, several new pharmacists have joined the counseling team, and we have begun counseling patients on the transitional open-heart unit (TOHU). First visits are made the day after admission and patients are introduced to the program and given a pamphlet explaining their medications. (Why, when, what are the ADRs?) A card with information about outpatient pharmacy services at Health Spectrum Pharmacies is also provided. Pharmacists write the PILL line phone number on patients' white boards so they know what number to call with questions. A pharmacist monitors the PILL line Monday through Friday from 8 a.m. to 4 p.m. and returns all messages within 24 hours. Pharmacists then make visits on the second day and as needed after that.

HCAHPS scores have continued to improve since the program's inception. Monthly scores are above or near goals, and the year-to-date averages are rising as well.

- ▶ The LVH–Muhlenberg inpatient pharmacy is also very focused on improving the "Communication About Medications" domain of HCAHPS. In addition to pharmacists visiting patients, we have reached out to our volunteers to develop a point person to greet patients and explain the importance of an accurate home medication list. Volunteers inform patients about Health Spectrum Pharmacy Services' ability to deliver discharge medications right to their rooms prior to discharge, and offer that an inpatient pharmacist is available to stop by to answer questions about medications. Volunteers are excited to work with pharmacy, and have been meeting with patients since March. It's too early to see the impact, but we are hopeful we can maintain the improvement we had on 4T and spread it to the entire tower. The PILL line is also available at LVH–Muhlenberg.

While we know we are not the only departments trying to make strides in this domain, we are glad to be part of the team helping to improve our patients' satisfaction with LVHN.



TECHNOLOGY

Since December 2015, the inpatient pharmacy has implemented 55 Pyxis™ 4000 Anesthesia Systems in hospital operating rooms and procedural areas at LVH–Cedar Crest, LVH–17th Street, the Fairgrounds Surgery Center and our new pediatric ambulatory surgery facility, known as the J.B. and Kathleen Reilly Children’s Surgery Center. Having these systems in place in these areas will help maximize medication safety, security and workflow. Through a combination of innovative hardware and software capabilities, the systems help support hospital compliance efforts with The Joint Commission and regulatory requirements for secure medication management.



Along with Pyxis 4000 Anesthesia Systems, we have implemented 58 Codonics Safe Label Systems™ throughout operating rooms and procedural areas. The Codonics Safe Label System is a complete solution that improves patient safety and labeling compliance in operating rooms (OR) or anywhere syringes are prepared. They print full-color labels that include a 2-D barcode which can be enabled for electronic documentation of medication in patients’ health or anesthesia records. This helps reduce common drug errors made in the OR during medication preparation and administration.

At Health Spectrum Pharmacy Services, we have begun implementation of Eyecon®, a unique machine vision counting system. A camera mounted above the counting platter captures photo images used to count pills five times per second. When the machine vision technology detects pill fragments or foreign matter on the counting platter, it alerts the operator. This feature ensures the quality of prescriptions filled on Eyecon.

We also rolled out TherigySTM™ Software. Therigy’s innovative solution to specialty therapy management was designed for leading specialty pharmacies to provide disease and therapy-specific clinical support, maximize adherence and improve patient outcomes. This quick-start Health Insurance Portability and Accountability Act (HIPAA)-compliant web application delivers pre-configured clinical content for specialty pharmacies to manage, track and report data on treatment of patients on specialty medications.

Another project we are implementing is the Health Spectrum Pharmacy app for your iPhone or Android device. This app will allow patients to order refills on prescriptions and view their Rx profiles. The new technology gives patients an easy and convenient way to connect with the pharmacy. Patients also will be able to carry an electronic version of their medication profiles at all times.

20,000

MEDICATION ORDERS
ENTERED INTO EPIC IN 24 HOURS

EPIC

On Friday, July 31, 2015, years of preparation culminated in the main event with conversion from Centricity to the Epic system as LVHN's state-of-the-art electronic health record. On that morning, a skeleton crew arrived to maintain pharmacy operations at LVH-Cedar Crest, LVH-Muhlenberg, LVH-17th Street and LVHN-Tilghman.

The remainder of our staff along with a group of physician assistants (PA) descended upon the 1247 Cedar Crest building to begin the massive task of manually converting all medication orders from Centricity into Epic. More than 40 pharmacists and 25 PAs worked well into the night and early hours of the following day.

At 5 a.m. on Aug. 1, the first medication order was entered into Epic, and we heralded in a new era of health information at LVHN. At the end of conversion, more than 20,000 medication orders were entered into Epic over 24 hours. This was a monumental achievement for the pharmacy department and LVHN.

In the days, weeks and months since Epic implementation, thousands of tickets were logged with information services (I/S) to fix issues and work out bugs. The pharmacy has embraced the new technology by implementing new and better ways of caring for LVHN patients. As we move forward, the pharmacy is eager to work closely with the Epic team and other network departments to optimize the system to work even better for us. We also look forward to implementing new modules that will continue to help us work smarter. Some of these include:

- ▶ Beacon – an oncology module slated for FY17 implementation
- ▶ Pharmacy Clinical Surveillance module – due to replace Senti7 in FY18
- ▶ Antimicrobial Stewardship module – no date set



COMMUNITY CARE TEAM

1,627
PATIENT
OUTREACH ENCOUNTERS

Clinical pharmacists on the Community Care Team provide comprehensive medication management services to patients in primary care and specialty practices (cardiology, pulmonology and endocrinology) within the network. Clinical pharmacists review patients' medication regimens and make recommendations to optimize their appropriateness, effectiveness and safety. Clinical pharmacists provide education to patients as part of disease state management regarding chronic diseases and medications used to treat them. Disease states we focus on include diabetes, congestive heart failure, chronic obstructive pulmonary disease, asthma and chronic kidney disease. Clinical pharmacists teach patients how to use their inhalers and insulin/glucagon-like peptide (GLP) pens correctly to help improve patient compliance and understanding of these devices. Clinical pharmacists encourage patients to take an active role in the management of their conditions and provide recommendations to improve adherence and understanding. Clinical pharmacists work in collaboration with providers to help patients reach treatment goals, ensure patients are being treated according to best evidence and that accountable care organization (ACO) quality measures are being met where applicable.

Between Jan. 1, 2016, and May 31, 2016, clinical pharmacists received 657 referrals and initiated 1,627 patient outreach encounters, both as face-to-face appointments in the office and over the phone.

AWARDS/NOMINATIONS

FRIENDS OF NURSING NOMINEES

Misty Davis, PharmD
Nick Yackanicz, PharmD

Jennie Mansfield, CPhT
Lauren Grantz, PharmD, CSP

Pharmacy Services was honored to have four colleagues nominated for 2016 LVHN Friends of Nursing awards...three nominees for Excellence as a Pharmacist and one nominee in Excellence as a Technician. This year's Pharmacist nominees were Misty Davis, Lauren Grantz and Nick Yackanicz. Jennie Mansfield was nominated for Excellence as a Technician. The Excellence as a Pharmacist award was presented to Lauren Grantz.

Kristin Held Wheatley, PharmD – Selected as recipient of 2016 HOPA (Hematology Oncology Pharmacy Association) New Practitioner Award, March 2016

Annamarie Higgins, PharmD – Nominee for Hal Dolenga Emerging Leader Award through ACHE

4
FRIENDS OF NURSING
NOMINEES

STRATEGIC PLAN FOR FISCAL YEAR 2017

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 continue to be guided by the Triple Aim, a framework that helps us produce better health, better care and better cost.

GOALS

Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)

- ▶ Implement at least two new initiative or coverage areas for patient counseling on medications
- ▶ Improve “medication-related scores” HCAHP percentile ranking at LVH–Muhlenberg by 2 percent over fiscal year 2016

Pediatrics

- ▶ Successful pediatric oncology move from LVH–Muhlenberg to LVH–Cedar Crest January/February 2017
- ▶ Continued discussion around establishing a pediatric pharmacy in the Jandl Pavilion

Integration

- ▶ Work with LVH–Hazleton, Schuylkill Health System, Pocono and other entities
- ▶ Complete integration work including early wins team and savings identification within established time frames
- ▶ Redirect referrals to Health Spectrum Pharmacy Services
- ▶ Continue work around knowing our resources, engaging employees at full potential, and recognizing and celebrating successes

Group Purchasing Organization (GPO)

- ▶ Successful conversion from Vizient to HealthTrust within the 120-day time frame (June 1–Sept. 30, 2016)
- ▶ Utilize HealthTrust Clinical Contract Integration Initiatives (CCII) along with our own initiatives to demonstrate an \$80,000 cost savings

Specialty Pharmacy

- ▶ Accreditation from the Center for Pharmacy Practice Accreditation (CPPA) in 2017
- ▶ Increase gross margin income over fiscal year 2016 by \$600,000

Muhlenberg Tower

- ▶ Training of all LVH–Muhlenberg staff on neonatal and obstetrics care delivery
- ▶ Purchase and deployment of Pyxis automation
- ▶ Opening on July 1, 2017

Relocation of the Home Infusion Division

- ▶ Plan design for 2024 Lehigh Street to meet the newest standards for USP 797 and 800
- ▶ Construction with space to accommodate the growing market
- ▶ Fit out of equipment and technology including infusion chairs
- ▶ Move and opening in 2017

Epic's Beacon module

- ▶ Protocol/treatment plan validation and testing
- ▶ Integration of inpatient and outpatient chemotherapy plans for continuity of care
- ▶ Training of all pharmacy personnel
- ▶ Implementation on Oct. 29, 2016

Pharmacy Services Integration Retreat Jan. 20, 2016

- ▶ An enriched discussion at the retreat ensued, and three areas became the primary focus for the upcoming year: knowing our resources, engaging employees at full potential and recognizing and celebrating successes
- ▶ Team leads will provide report outs on the work completed at leadership quarterly meetings.

COMMUNITY SERVICE ACTIVITIES

- ▶ Adopt a Family for Christmas
- ▶ Animal Rescue League
- ▶ Bethlehem Medical Reserve Corps
- ▶ Black Out for AIDS/HIV benefit
- ▶ Build a Bear (youth group) for LVHN pediatric unit
- ▶ Cub Scout Pack 61 Breinigsville
- ▶ Cookies for Snookie
- ▶ Elephant's Trunk/Planned Parenthood
- ▶ Girl Scouts of Eastern PA
- ▶ Jordan Lutheran Church call committee
- ▶ Lehigh County Humane Society
- ▶ Lehigh Valley Pediatric Oncology bake sale fundraiser
- ▶ Lions Club Organization – eyeglasses
- ▶ LVHN Community Flu Campaign 2015
- ▶ Lehigh Valley Active Life Senior Fair – Flu Campaign 2015
- ▶ March of Dimes
- ▶ Miller-Keystone Blood Center
- ▶ Nazareth Area Food Bank
- ▶ New Tripoli Fire Company
- ▶ Operation Christmas Child
- ▶ Outreach/Street Medicine
- ▶ Pediatric Cancer Foundation of Lehigh Valley bake sale
- ▶ Saucon Valley YMCA Founders Committee
- ▶ Southern Lehigh Community Pool board member and run swim team
- ▶ Stack the Pack – school supplies
- ▶ St. George Orthodox Church
- ▶ Upper Macungie Township Community Center
- ▶ Via Marathon volunteer
- ▶ Weisenberg Lutheran Church high school youth group adviser
- ▶ World Meeting of Families Papal Visit (Southeast PA Specialized Medical Assistance Team), Philadelphia
- ▶ Wounded Warrior

WALK/RUN PARTICIPATION

- ▶ Lehigh Valley Walk for Children With Apraxia of Speech
- ▶ March of Dimes Walk
- ▶ MS Walk
- ▶ The Great Ambulance Chase 5K – Cetronia Ambulance Corps
- ▶ Upper Macungie Township 5K Run/Walk for Parks
- ▶ Via Half Marathon
- ▶ West End St. Patrick's Day 5K
- ▶ Women's 5K Classic

PUBLICATIONS/PRESENTATIONS/POSTERS

PRESENTATIONS

Janine Barnaby

Understanding USP <800> and the 2014 NIOSH List – PSHP. Oct. 2015

Chemotherapy Core Course – Sept. 22, 2015, Nov. 19, 2015, Jan. 20, 2016, March 9, 2016

Hematology/Oncology Fellow Curriculum lectures – July 15, 2015, Nov. 5, 2015, Feb. 5, 2016, April 13, 2016, May 5, 2016

Jenny Boucher

Pharmacology & Pharmacodynamics PediaPred – Pediatric medical residency educational lecture series. April 13, 2016

Marissa Csovelak

Pulmonary Rehab Presentation. July 21, 2015

Acute Bacterial Meningitis – Internal Medicine (MHC). Aug. 14, 2015

Chronic Heart Failure – Internal Medicine (CC). Sept. 24, 2015

Antibiotics – Family Medicine. Oct. 23, 2015

Gemcitabine-induced Thrombotic Thrombocytopenic Purpura in a recurrent stage 3C ovarian cancer patient – Oncology-1. Dec. 3, 2015

Pulmonary Rehab Presentation. Jan. 12 and 14, 2016

Insulin – Family Medicine. Jan. 22, 2016

H/O Conference Presentation – Glucarpidase (Voraxaze) Pediatric Infectious Disease/Hematology/Oncology. April 12, 2016

Kristin Held Wheatley

Menstrual suppression – Peds Hem/Onc Educational Conference. July 7, 2015

Antibiotics Part I – Pediatric Medical Residents PediaPred lecture series. July 1, 2015

Antibiotics Part II – Pediatric Medical Residents PediaPred lecture series. Oct. 14, 2015

Clinical Pearls: Understanding USP <800> and the 2014 NIOSH List. Pennsylvania Society of Health-System Pharmacists Annual Assembly, Lancaster, Pa. Oct. 29, 2015.

Alternative options in pain management – Peds Hem/Onc Educational Conference. Nov. 17, 2015.

Asparaginase Monitoring – Peds Hem/Onc Educational Conference. March 22, 2016

Glucarpidase (Voraxaze) – Peds Hem/Onc Educational Conference. April 12, 2016

Acute Lymphoblastic Leukemia: Past, Present and Future – ACPE Pharmacy Presentation. May 23, 2016

Sean Maydick

The Drug Market in the US. Presented to visiting Peruvian health care doctors at DeSales University. May 2016

Cindy Mitman

Engaging Colleagues: Making Connections to Answer the Insourcing “Tough Questions.” Served as breakout session facilitator for a Promotional Theater conducted at 2016 ASHP Summer Meeting. Baltimore, Md. June 2016

Joseph Ottinger

Annual Antibiotic Review in Basic Dental Practice. Presented to dental clinic residents at LVHN, Allentown, Pa. July 29, 2015

Review of Parenteral Anti-Platelet Agents: Focus on GP IIb/IIIa inhibitors and Cangrelor. Presented to Interventional Cardiac Directorship of LVHN. Sept. 2015

Annual Pain Management Strategies in Dental Medicine. Presented to dental clinic residents at LVHN, Allentown, Pa. Sept. 23, 2015

New Oral Anticoagulants: Clinical Use in Patients With Kidney Disease. Presented at the Transplant Symposium for the Lehigh Valley Health Network. March 2016

Jessica Price

Psychotropic Medication Updates. Presentation: ACPE 0.5 contact hour, Placebo Spooktacular Educational Symposium, Conshohocken, Pa. Oct. 21, 2015

Treatment of Chronic Pain and Agitation in Patients With Substance Abuse. Presentation to psychiatry staff, LVHN, Bethlehem, Pa. Dec. 8, 2015.

Treatment of Chronic Pain and Agitation in Patients With Substance Abuse. Home study: ACPE 1.0 contact hour; LVHN, Allentown and Bethlehem, Pa. May 2016.

Samantha Spishock

Post-Streptococcal Glomerulonephritis – Internal Medicine (CC). Aug. 14, 2015
Cancer-Associated Venous Thromboembolism – Internal Medicine (MHC). Sept. 18, 2015
Pulmonary Rehabilitation Education Session – presented to patients. Oct. 13, 2015
Antibiotics Overview – presented to Family Medicine PGY 1 residents. Oct. 23, 2015
Asparaginase-Associated Pancreatitis – Pediatrics. Dec. 3, 2015
Inpatient Management of Diabetes – presented to Family Medicine PGY 1 residents. Jan. 22, 2016
Emerging Health Professionals Program – presented to high school seniors. Jan. 29, 2016 and Feb. 19, 2016
Pulmonary Rehabilitation Education Session – presented to patients. April 5, 2016 and April 7, 2016
Therapeutic Drug Monitoring Presentation at RN Staff Meeting Peds Onc/ID. June 22, 2016
Aminoglycosides CE in Cystic Fibrosis – Peds Onc/ID. June 28, 2016

Rhonda Thomas

Clinical Pearls: Understanding USP <800> and the 2014 NIOSH List. Pennsylvania Society of Health-System Pharmacists Annual Assembly, Lancaster, Pa. Oct. 29, 2015

PUBLICATIONS

Lauren Grantz

“Specialty Medications Are Game Changers” LVHN Better Medicine. Winter 2016

Sean Maydick

“Specialty Medications Are Game Changers” LVHN Better Medicine. Winter 2016

Joseph Ottinger

Written CE modules for Pharmacy staff CE and published materials
Review of Immunosuppressive Drug Therapy 2015-Focus on Renal Transplant Use with specifics related to the LVHN transplant program- (0.2 CEU ACPE accredited education for LVHN pharmacists). Aug. 2015
Review of Major Antihypertensive Classes: Focus diuretics, β -blockers, calcium channel blockers, and renin-angiotensin system inhibitors. (0.2 CEU accredited education for LVHN pharmacists). Feb. 2016.
HOW LONG should Antiplatelet therapy be continued after a stent?? Published in LVHN Pharmacy Newsletter. June 2016

POSTERS

Held Wheatley K., Spishock S., Villalobos-Fry T.

Comparison of pediatric outpatient antibiotic prescribing patterns for specified indications in primary care practices. American Society of Health-System Pharmacists Midyear Clinical Meeting, New Orleans, La. Dec. 2015.

Fair M., Geerlof L., Jabbour E., Leatherman L.

Impact of a reduced pharmacist to patient ratio on HCAHPS scores and 30-day readmissions on a medical-surgical unit. American Society of Health-System Pharmacists Midyear Clinical Meeting, New Orleans, La. Dec. 2015.

JOURNAL CLUB

Marissa Csovelak

Initial use of ambrisentan plus tadalafil in pulmonary arterial hypertension; Galiè N, Barberà JA, Frost AE, et al. Initial use of ambrisentan plus tadalafil in pulmonary arterial hypertension. *N Engl J Med.* 2015;373(9):834-44. Internal Medicine. Sept. 10, 2015

Levosimendan reduces heart failure after cardiac surgery: a prospective, randomized, placebo-controlled trial. Lahtinen P, Pitkanen O, Polonen P, et al. Levosimendan reduces heart failure after cardiac surgery: a prospective, randomized, placebo-controlled trial. *Crit Care Med.* 2011;39(10):2263-70. – Cardiology. March 4 and 18, 2016

Samantha Spishock

Once weekly dulaglutide versus bedtime insulin glargine, both in combination with prandial insulin lispro, in patients with type 2 diabetes – Internal Medicine. July 30, 2015

Perioperative bridging anticoagulation in patients with atrial fibrillation – Internal Medicine (MHC). Sept. 11, 2015

Low Dose Acetylsalicylic Acid Treatment and Impact on Short-term Mortality in Staphylococcus aureus Bloodstream Infection – Critical Care. April 14, 2016

