

2023 ANNUAL REPORT



 **WVU**Medicine

PHARMACY

From the Chief Pharmacy Officer

It is once again my pleasure to present the Pharmacy Annual Report for West Virginia University Hospitals. It has been a tremendous year for our pharmacy team and colleagues across Morgantown in providing excellent, high quality patient care. We have continued to provide high level pharmaceutical care over the 2023 calendar year and have continued to carry out our mission of providing safe, high quality, affordable patient-centered care to improve the health of West Virginians and all we serve.

I am very proud of the work we were able to accomplish and the patients we were able to care for. We have made very good progress on our goals that are laid out in our Strategic Plan for 2023-2025. We have seen continual growth in our pharmacy team across the greater Morgantown area and foresee that growth to continue in 2024.

The collective and individual accomplishments of our department and staff are far too many to mention. Our focus has been, and will continue to be, on enhancing the patient experience as they transition throughout our health system, providing evidence-based medication management and improving the value of health care for our patients. We have been able to accomplish this by aligning our department goals with the goals of the organization and by maintaining a focus on the critical opportunities in front of us.

I encourage each of you to take some time to read through the FY23 annual report and celebrate the accomplishments of our department and your peers. We will continue to face challenges in the very rapidly changing health care environment. I know that through our collective efforts, collaboration, and focus on the strategic priorities we will be successful in providing the best care and service to our patients.

I am truly honored and humbled by the opportunity to lead such a fantastic group of individuals at the very best health care system in West Virginia. I am looking forward to what we can accomplish in 2024!

Key Accomplishments

- Approval for new Pharmacy Consolidated Service Center at the Innovation Corporation
- Collaboration with Retail pharmacy to streamline discharge medication processes and Discharge Price Inquiry tool
- 25 percent increase in medication histories in our ambulatory care clinics
- Expansion of both PGY1 and PGY2 pharmacy residency positions in Pediatrics
- Implementation of Stateside COPAT and OPAT programs
- Expansion of the entire MBRCC team including managers pharmacists and technicians
- Full compliance with new USP 797/800 standards
- Creation of new medication safety and diversion management positions to support WVUH and WVU Medicine
- 184 APPE rotations, 32 IPPE rotations with 82 students from WVU
- Exceeded \$1,000,000 on Omnicell 1 savings over 2 years
- Significant increases in volumes in our outpatient, specialty and home infusion pharmacies

Warmest regards,



Todd Karpinski, PharmD, MS, FASHP, FACHE
Chief Pharmacy Officer
West Virginia University Health System

2023

OUR MISSION

WVU Medicine Pharmacy will provide safe, high quality, and affordable patient centered care to improve the health of West Virginians and all we serve.

OUR VISION

WVU Medicine Pharmacy will be the most employee focused pharmacy delivering the best patient care.

OUR VALUES

Provide **Safe** and **Efficient Care**

Be **Employee** Focused

Drive **Financial Performance**

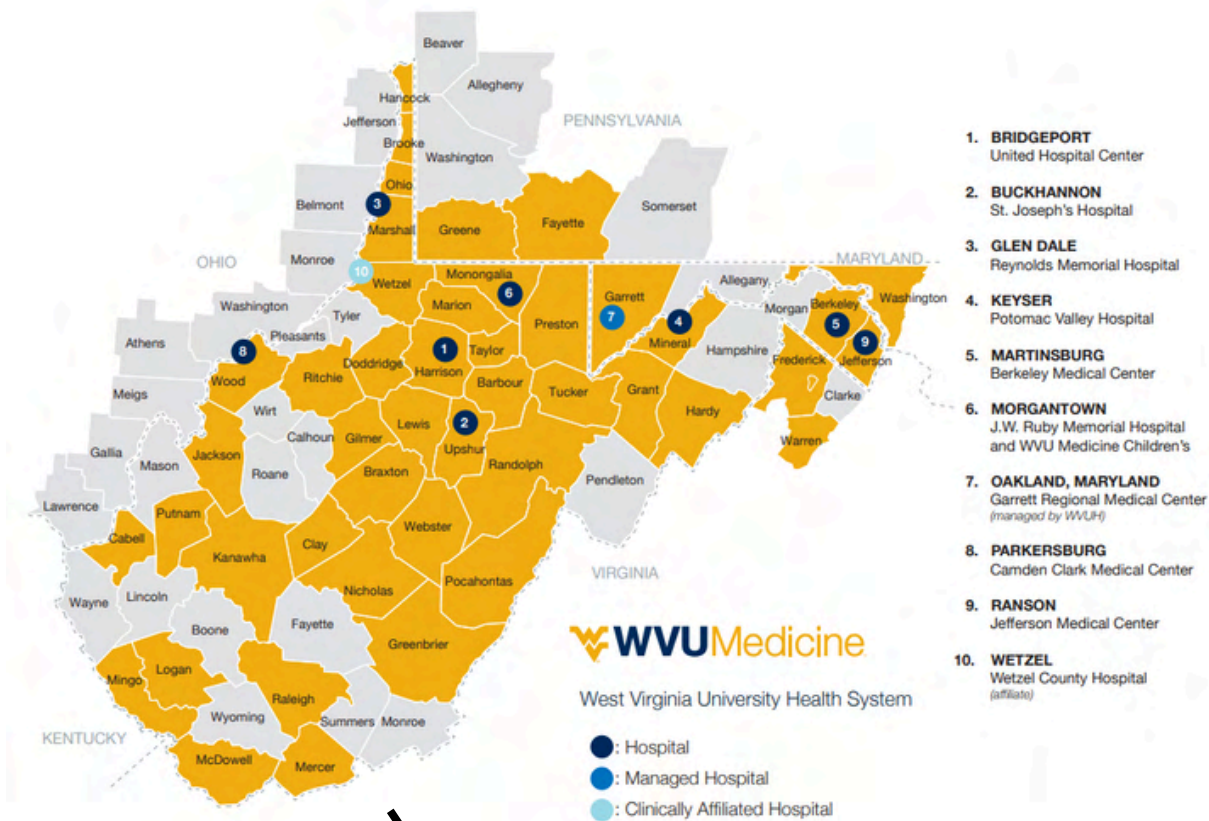
Educate and **Innovate**

Improve **Quality** of Patient Care



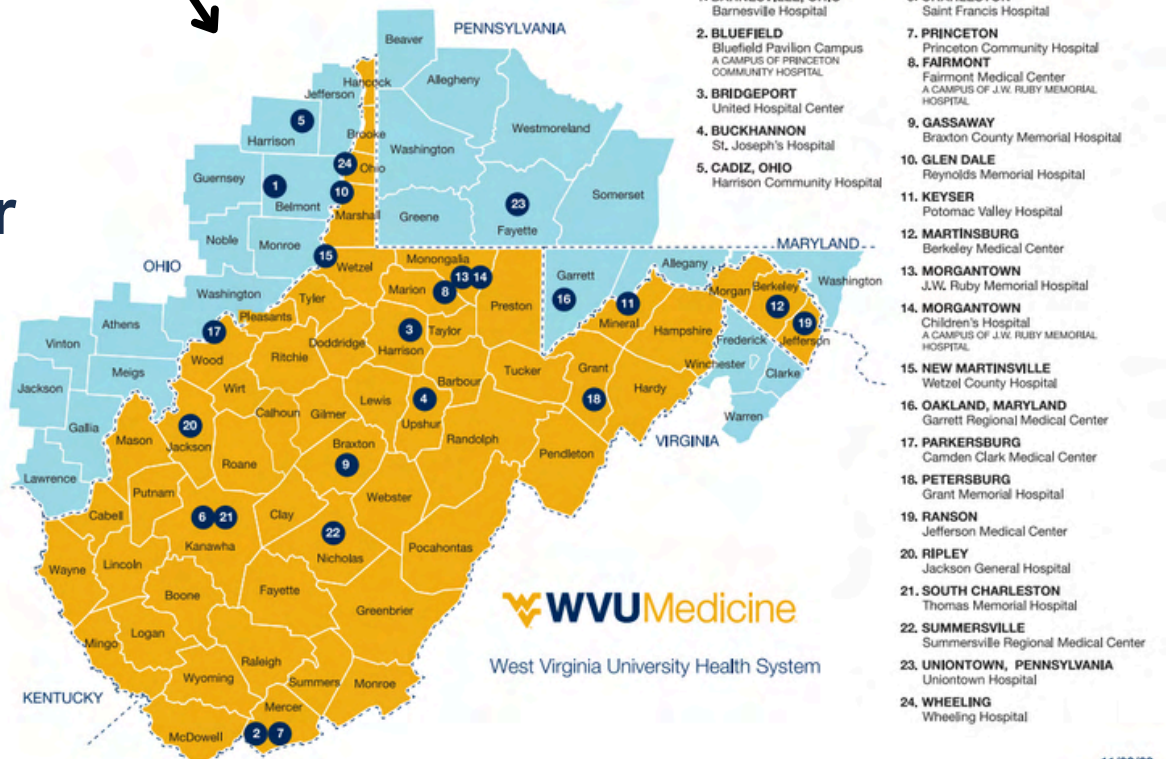
Health System Progression

April
2018



- BRIDGEPORT**
United Hospital Center
- BUCKHANNON**
St. Joseph's Hospital
- GLEN DALE**
Reynolds Memorial Hospital
- KEYSER**
Potomac Valley Hospital
- MARTINSBURG**
Berkeley Medical Center
- MORGANTOWN**
J.W. Ruby Memorial Hospital and WVU Medicine Children's
- OAKLAND, MARYLAND**
Garrett Regional Medical Center (managed by WVUH)
- PARKERSBURG**
Camden Clark Medical Center
- RANSON**
Jefferson Medical Center
- WETZEL**
Wetzel County Hospital (affiliate)

December
2023



Member System Hospitals

- BARNESVILLE, OHIO**
Barnesville Hospital
- BLUEFIELD**
Bluefield Pavilion Campus
A CAMPUS OF PRINCETON COMMUNITY HOSPITAL
- BRIDGEPORT**
United Hospital Center
- BUCKHANNON**
St. Joseph's Hospital
- CADIZ, OHIO**
Harrison Community Hospital
- CHARLESTON**
Saint Francis Hospital
- PRINCETON**
Princeton Community Hospital
- FAIRMONT**
Fairmont Medical Center
A CAMPUS OF J.W. RUBY MEMORIAL HOSPITAL
- GASSAWAY**
Braxton County Memorial Hospital
- GLEN DALE**
Reynolds Memorial Hospital
- KEYSER**
Potomac Valley Hospital
- MARTINSBURG**
Berkeley Medical Center
- MORGANTOWN**
J.W. Ruby Memorial Hospital
- MORGANTOWN**
Children's Hospital
A CAMPUS OF J.W. RUBY MEMORIAL HOSPITAL
- NEW MARTINSVILLE**
Wetzel County Hospital
- OAKLAND, MARYLAND**
Garrett Regional Medical Center
- PARKERSBURG**
Camden Clark Medical Center
- PETERSBURG**
Grant Memorial Hospital
- RANSON**
Jefferson Medical Center
- RIPLEY**
Jackson General Hospital
- SOUTH CHARLESTON**
Thomas Memorial Hospital
- SUMMERSVILLE**
Summersville Regional Medical Center
- UNIONTOWN, PENNSYLVANIA**
Uniontown Hospital
- WHEELING**
Wheeling Hospital

Strategic Plan Executive Summary

January 1, 2023 - December 31, 2025

Provide safe and effective care

- Further enhance processes with medication reconciliation, patient and caregiver education, medication acquisition assistance, and post-discharge follow-up

Improve clinical quality of care

- Centralize prior authorizations for Inpatient, Ambulatory, Retail, and Specialty spaces (Appeals/Denials, Use of technology, Patient Assistance)
- Expand telehealth services and billing for pharmacist services
- Grow clinical programs across WVUHS

Be employee focused

- Create career ladder analyses for pharmacists, technicians, and other non-pharmacist positions
- Develop technician pay grades and scales
- Establish formal technician engagement program
- Ensure communication of goals and initiatives shared across Divisions

Educate and innovate

- Build and expand on pharmacy technician education program

Improve financial performance

- Increase capture of specialty medications, home infusion and retail capture
- Launch Centralized Service Center to service health system
- Utilize internal and external benchmarking to reduce clinical utilization variation across the system to decrease practice variation (Standardize EPIC tools, acuity scoring)

Clinical Pharmacy Services

2,862,680

ORDERS VERIFIED (60% INCREASE)

130,921

PHARMACY INTERVENTIONS

43,495

NOTES PLACED

7,432

PHARMACIST TO DOSE PER PROTOCOL ORDERS

6.0

AVERAGE LENGTH OF STAY (DAYS)

575

Average Daily Census

79.4%

Occupancy Rate

2023 ADULT CLINICAL PROGRAM HIGHLIGHTS

- Partnered with Supply Chain to better integrate pharmacy specialists into drug shortage management and communication
 - Specialists provide real time recommendations on how to triage and approach drug shortages at weekly meeting and communicate division specific drug shortage updates
- Collaborated with Retail Pharmacy to implement the Discharge Price Inquiry Tool
 - March 2023 (go live) - July 2023 Price Inquiries Completed: 1,301 (260 per month)
 - August 2023 - December 2023 Price Inquiries Completed: 3,104 (620 per month)
- Supported the successful transition to Pharmacy dispensing blood bank products, positively impacting appropriate utilization and spend
 - Per month product spend pre-pharmacy: \$322,959.17
 - Per month product spend post-pharmacy: \$185,544.60 (-42.55% monthly spend)
- Went live with new Pharmacist-to-Dose protocol orders, including warfarin and TPNs
 - INR > 5 Pharmacist Managed: 5.2%
 - INR > 5 Provider Managed: 13.1%
- Welcomed Kelli Phipps as the new medicine/cardiology clinical manager

CLINICAL PHARMACY SERVICES

Clinical pharmacy specialists and generalists at WVUH provide patient care to adult populations in both acute care and ambulatory care settings. Clinical pharmacist services are tailored to patient care needs, and may include the development of individualized pharmacotherapy plans, medication management and optimization, patient education, and coordinating transitions of care. In addition to direct patient care, the clinical pharmacists lead quality improvement initiatives, precept learners, and serve on department and hospital committees and workgroups to advance the practice of pharmacy and raise the quality of patient care at WVUH.

Clinical Pharmacy Divisions



The **Acute Care Adult Clinical Services** pharmacy division comprises all adult inpatient medical and surgical service areas and their related specialty areas. It is composed of clinical generalist pharmacists and clinical specialist pharmacists providing around-the-clock pharmacy services for 75 adult services. Clinical pharmacists are integrated into patient care teams as part of a practice model consisting of service line-based coverage, with clinical pharmacists predominantly decentralized. Clinical pharmacists participate in daily interdisciplinary patient care rounds for most medical services in addition to order verification duties, management of pharmacist-owned protocols, emergency response, and other patient care activities.

Glycemic Control

CMS standardized when and how hospitals report hyperglycemia and hypoglycemia in the inpatient setting in 2023. Hospitals will now be required to report on incidence of severe hyperglycemia/hypoglycemia during a hospital stay which impacts reimbursement.

Severe Hypoglycemia is defined as the proportion of inpatient admissions having:

- One blood glucose recorded that is <40 mg/dL collected within 24 hours of administering insulin (or other antihyperglycemic agent), AND
- No subsequent glucose test result with a result >80 mg/dL within 5 minutes of the low glucose result, during their stay.

Severe Hyperglycemia is defined as number of hospital days with severe hyperglycemic event (defined below) per total qualifying hospital days among patients who have either:

- A diagnosis of diabetes mellitus,
- Received at least one administration of insulin or anti-diabetic medication during the hospital admission OR
- Had an elevated blood glucose (> 200 mg/dL) during their hospital admission

To aid in reducing rates of these events and to treat our patients in a timely manner, multiple initiatives were undertaken by local and enterprise pharmacists. To promptly address hypoglycemic events, a nursing driven hypoglycemia management panel and protocol were created. This allows nurses to treat hypoglycemic events per protocol with a variety of agents if a patient's glucose level drops below 70 mg/dL. To prevent hyperglycemic events, a variety of treatment protocols and pathways were revamped including our DKA order set and patient own insulin pump order set. Additional work on non-DKA insulin infusions and sliding scale insulin order sets remain ongoing to prevent hyperglycemic events.

Medication Reconciliation Program

The WVU Medicine medication history and reconciliation program is a multidisciplinary team consisting of clinical pharmacist, clinical technicians, and pharmacy students. This team works together to provide the healthcare team with the most accurate and comprehensive list of medications taken prior to admission to improve the health of West Virginians and all we serve. Medication historians conduct patient interviews and call outpatient pharmacies and facilities to collect the patients most current medication history for the clinical pharmacist. The clinical pharmacist then completes the medication reconciliation process by reviewing the medication history and identifying and preventing medication discrepancies and errors.

Projects and Achievements

- Restructured the Intern Program
 - Four second- or third-year pharmacy students are now dedicated to the medication history team for enhanced weekend and evening coverage.
- Made progress toward medication historian documentation standardization to be further streamlined in 2024.
- Strengthened follow-up and pass-off communication between medication historians and pharmacists.
- Created Adult Medication History schedule in StaffReady to increase transparency with our growing team.

Antithrombotic Stewardship Program

The Antithrombotic Stewardship Program is dedicated to enhancing the safety and quality of antithrombotic use across the continuum of care of WVU Hospitals. This team is comprised of two clinical specialist pharmacists, one clinical pharmacy technician, and is overseen by a physician medical director. The team works collaboratively with clinical pharmacists and medical staff to positively impact the safe and effective utilization of antithrombotic medications and achieve optimal patient outcomes while minimizing harm.

ATS Pharmacy Technician

- Reviewed a total of 775 patients newly started on an oral anticoagulant
 - A note was documented on each patient reviewed to provide assessment of cost and affordability, prescription transcription, and if medication was picked up after discharge
 - Over 120 financial and non-financial interventions documented from the patients reviewed
- ATS Pharmacy technician assisted with completion of 28 Patient Assistance Applications for apixaban and rivaroxaban

ATS Pharmacists

- Over 190 ATS pharmacist interventions were documented for the optimization of therapy with anticoagulation including: DOACs, warfarin, VTE prophylaxis, anticoagulation reversal, lab monitoring, etc.
- Pharmacist to Dose Warfarin service go-live 1/05/23
 - Overall rate of INR ≥ 5 for all services 2.4% in 2022
 - Rate of INR ≥ 5 for all services in 2023 currently 1.77%
 - 0.87% if dosed by a pharmacist
- “The utility of an INR and best practice for monitoring DOAC therapy” presented at the Anticoagulation Forum National Conference poster presentation
- Completed QI project: “Evaluating Transitions of Care for Patients Newly Started on Warfarin within an Academic Medical Center”, yielding valuable information to understand warfarin patient readmissions
- ATS primary patient monitoring system transitioned from TheraDoc to an Epic Alert and Scoring Tool
- Estimated review of approximately 40 alerts daily
- Critically reviewed and analyzed 60 perioperative and same day surgery case cancellations due to antithrombotic medications and presented out to Perioperative Quality Council for next steps
- Critically reviewed 58 Mountain ZERO hospital acquired VTE cases for errors and future interventions

Transitions of Care

- 132 interventions were documented by ATS pharmacists pertaining to assistance with financial and non-financial complications for transitions of care of patients on oral anticoagulants
- Over 28 patient assistance applications were submitted, with 14 approved by the respective foundations for apixaban and rivaroxaban
 - For the 14 denied applications, ATS pharmacists assisted with transition to alternative medication including communication between patient, pharmacy, and provider

Ambulatory Care

Growth continued for the adult ambulatory care division with the hiring and onboarding of a new clinical pharmacist position in the Cardiology Fellows and Lipid clinics. The division continued to see success in the PGY2 Ambulatory Care Residency Program as they achieved ASHP Accreditation and matched with their second PGY2 resident in 2023! The Medical Group Practice pharmacy team re-structured anticoagulation services to a centralized model and hired the 2022-2023 PGY2 Ambulatory Care Pharmacy Resident to rotate between anticoagulation clinic and internal medicine clinics at both University Town Centre and the Physician Office Center, which has streamlined patient care operations. In tandem, more pharmacists are utilizing scheduled patient visits to streamline their patient workflow and align with physicians and advanced practice provider workflows. Lastly, the division continues to push pharmacists to practice at the top of their licenses as a pharmacist pilot group continues to be enrolled with more commercial insurance plans as billable providers.

Primary Care

Transitions of Care Clinic
Anticoagulation Clinic
Internal Medicine - UTC
Internal Medicine - POC

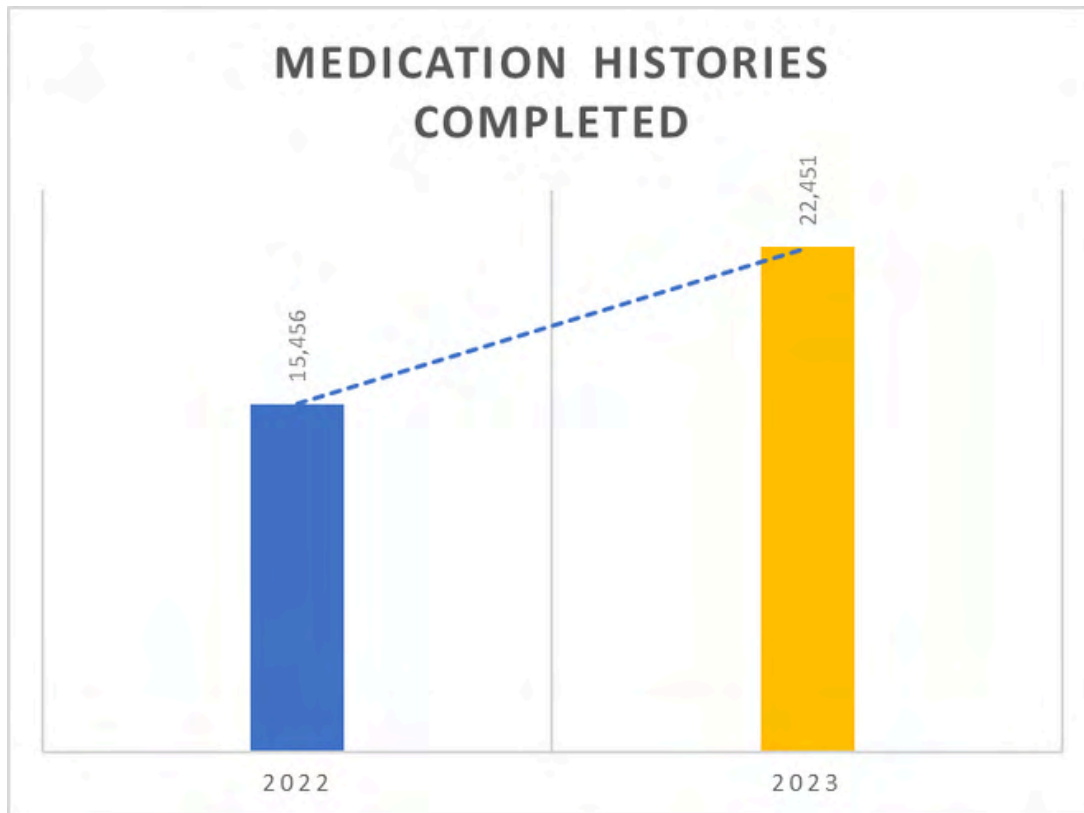
Specialty Care

Gastroenterology
Advanced Heart Failure
Lipid Clinic
Endocrinology
Neurology / Multiple Sclerosis
General Cardiology

Ambulatory Care

Accomplishments:

- 783 completed independent pharmacist visits with patients, including 192 new patient visits
 - Includes MGP-UTC, MGP-POC, Endocrinology, Heart Failure, and Gastroenterology
- Anticoagulation Clinic
 - 130 warfarin patients continuously managed in, with a 70% time in therapeutic range
 - 4,076 total INRs evaluated
- 8,427 pharmacist interventions documented
- 45% increase in total medication histories completed



Completed medication histories for 67% of all adult inpatient admissions, compared to 55% in 2022

Infectious Diseases Pharmacy Services

The ID Pharmacy services team consists of one lead clinical specialist, five clinical pharmacy specialists, four physicians, one nurse, and one administrative assistant.

2023 General Overview

- In conjunction with our infectious diseases physician colleagues and WVCSTI, we have worked to implement an ECHO series Statewide Antimicrobial Stewardship: OPAT and COpAT which delivers case based education to providers, nurses, pharmacists, etc. in WV and beyond
- Recorded 7 “Infectious Conversations” podcast episodes
- 1 presentation delivered at an international conference
- 1 WVU Medicine grand rounds presentation
- 2 presentations delivered at national conferences
- 3 posters were presented at national conferences
- 5 publications in peer-reviewed journals, including 1 book chapter in the IDSAP program
- 6 ACPE accredited CE’s presented



Infectious Diseases Pharmacy Services

Antimicrobial Stewardship (AMS)

- Hosted first annual WVU Medicine Foundations of Antimicrobial Stewardship Seminar Day with participants from across the system
- Implemented a new antimicrobial stewardship platform and workflow throughout the WVU Medicine system, Bugsy™
- WVUH antimicrobial use trends remain favorable in 2023. The top 3 antimicrobials in 2023 were:
 - cefazolin
 - vancomycin
 - cefepime
 - This is the first year vancomycin has not been our top utilized antimicrobial at WVUH!
- Reduced total WVUH anti-infective spend per patient day in 2023 by 23%, 2023 monthly average of ~\$13/patient day, compared to 2022
- In 2023 the AMS team continues to demonstrate success with an 80% intervention acceptance rate

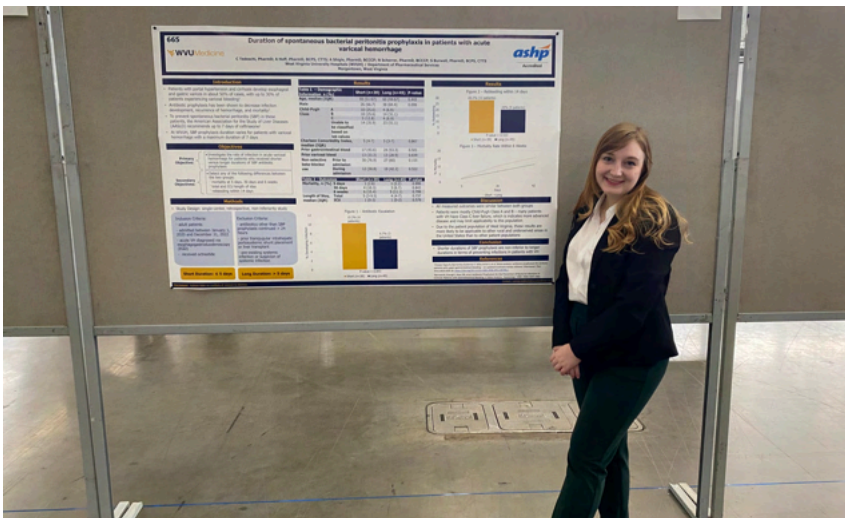
Outpatient Parenteral Antimicrobial Therapy

- In 2023 our OPAT program continues to demonstrate success with a 90% intervention acceptance rate
- 1,740 OPAT consults were completed in 2023
- The WVUH OPAT program was also featured on the OPAT Chat in November 2023 where Meera Mehta, Carissa Tedeschi, and Dr. Johnson presenting on OPAT: SNFing out a solutions
- Our OPAT program also implemented the following in 2023”
 - A pilot program for continuous infusion vancomycin in the home which will be expanded on in 2024
 - Formalized pre-discharge bedside education program

Infectious Diseases Pharmacy Services

Complex Outpatient Oral Antimicrobial Therapy (COpAT)

- Our COpAT services continued to grow with ~330 consults
- In 2023 our COpAT program continues to demonstrate success with a 76% intervention acceptance rate



WVU MEDICINE CHILDREN'S HOSPITAL

Celebrated 1-Year Anniversary of
Opening in September 2023!





EXPANDED PHARMACY SERVICES

Infant Nutrition Room

The Children's pharmacy took on oversight of the operations of the Infant Nutrition Room in July 2022. The room is responsible for preparation of all donor breast milk and maternal breast milk feedings for patients in the Children's Hospital. In addition, any formula requiring additional components is compounded by the pharmacy technicians. In the first full year of operations, the pharmacy technicians prepared 101,219 feeds for 816 patients

BY THE NUMBERS 2022-2023

250,587
ORDERS VERIFIED

36,106
ORDERS
AUTO-VERIFIED

98,544
DISPENSE PREP DOSES

653,412
TOTAL DOSES
ADMINISTERED

243,457
AUTOMATION DOSES
DISPENSED

9,218
OUTPATIENT
INFUSIONS COMPLETED





RECOGNITIONS AND AWARDS

Stephanie Bennett, CPhT

TRAUMA NIGHT OF RECOGNITION

Kala Rorabaugh, PharmD, BCPPS

BRAVO ANNUAL AWARDS

Randa WestBrook, CPhT

Zach Griffith, PharmD, BCSCP

Layne Smith, PharmD, BCPPS

DELIVERING THE BEST - AWARDED TO 3 OUTSTANDING EMPLOYEES



Pharmacy Residency

Expanded from 1
PGY2 position in 2022
to
1 PGY1 and 2 PGY2
positions in 2023

MBRCC INFUSION CENTER & IDS



HIGHLIGHTS

243,131
ORDERS VERIFIED

120+
ACTIVE CLINICAL
TRIALS

90,395
TOTAL OUTPATIENT
VISITS



MBRCC

INFUSION CENTER & IDS

- Expanded entire MBRCC team
 - 1 Director, 2 Pharmacy Managers
 - Grew to 14 oncology clinical pharmacists
 - 9 Pharmacy Technicians with 1 Lead
 - Created a new inventory technician position
 - Increased pharmacy residents to 3
- Upgraded elastomeric chemotherapy pumps and leading conversion for entire system
- Supported department initiative for blood factor transition
- Optimized use of EPIC CNR module
- Coordinated necessary preparations to be fully compliant with new USP <797> and USP <800> changes effective November 1, 2023



MEDICATION USE, SAFETY, QUALITY, AND COMPLIANCE

Medication Use

The focus of the WVU Medicine Health System Medication Use Team is to collaborate with healthcare professionals to promote the safe and effective use of medications for our patients. This is achieved through integration with clinical and operational staff, as well as those in medication safety, informatics, and pharmacy administration. Medication Use is directly responsible for assessing the clinical and safety impact of medications, forecasting future drug therapies, performing, and assisting clinicians in the execution of medication use evaluations and other benchmarking strategies.

Medication Use is also responsible for the coordination of the WVU Medicine Health System Pharmacy and Therapeutics (eP&T) Committee, in addition to the eight subcommittees focusing on ambulatory care, hematology/oncology, critical care, perioperative services, antithrombotic stewardship, antimicrobial stewardship, hospital medicine, and medication safety.

HIGHLIGHTS

44

CLINICAL PRACTICE GUIDELINES OR BEST PRACTICE RECONCILIATION DOCUMENTS REVIEWED

28

FORMULARY MONOGRAPHS DEVELOPED AND REVIEWED

25

CLASS REVIEWS FOR FORMULARY STANDARDIZATION

14

CRITERIA FOR USE REVIEW AND OPTIMIZATION FOR EXISTING FORMULARY AGENTS

26

ELECTRONIC HEALTH RECORD OPTIMIZATION INSTANCES

11

CRITERIA FOR USE REVIEW AND OPTIMIZATION FOR EXISTING FORMULARY AGENTS

MEDICATION USE, SAFETY, QUALITY, AND COMPLIANCE

SPECIFIC FOCUSED INITIATIVES

- Coordinated Medication Use Evaluations across multiple residency programs and the WVU School of Pharmacy
- Promoted the safe and effective care of patients with opioid use disorder through provider education and the development of clinical guidance, medication order panels, note templates and best practice advisories.
- Developed strategies to design a safe and effective system wide medication pump library.
- Delivered 5 platform presentations at the national or state level to continue efforts towards being a nationally recognized leader of medication use optimization.
- Developed and deployed educational materials for pharmacy technicians across the health system.
- Increased support for all system hospitals with the approval of 2 additional Medication Use FTEs.
- Partnered with each of the five WVUHS Institutes with one medication related initiative.
- Managed dedicated project time for pharmacists to develop strategies to integrate medication therapies into clinical care pathways to improve patient outcomes in several disease states, notably:
 - Atrial Fibrillation
 - UTI Express Lane
 - Post Stroke Care
 - Thrombolytic Use in PE, STEMI, and Stroke

MEDICATION USE, SAFETY, QUALITY, AND COMPLIANCE

SPECIFIC FOCUSED INITIATIVES

- Ensured PCA and Epidural pump library compliance to 100%
- Syringe pump library compliance increased by 5% with a goal of 95% compliance
- BCMA Compliance: 95% across WVUH
- Assisted with implementing spill drills in areas preparing hazardous medications
- Completed patient own pump build out with final drug classes - prostacyclins and antineoplastics
- WVUH Standardization:
 - Approval to remove stated weight option for documentation in epic
 - Enema Ordering
 - Completed streamlined medication designations and developed rules for future designations for hazardous medications as well as medications requiring dual sign off by nursing, dual verification by pharmacy
- Implementation of a WVUHS High Risk Medication Review working group
- WVUHS Policies (New)
 - Hazardous Medication Policy
 - Controlled Substance and Diversion Policy

Medication Safety and Compliance

Drug Diversion

- Expansion of drug diversion resources
 - Kim Lusk joined the WVUH team that can be devoted to the Control Check audit table and provide the ability to have a technician proactively review controlled substance practices
 - WVUH meets or exceeds national benchmarks with Control Check metrics
 - Average percent of “unreconciled” events
 - National average: 4.52% vs WVUH: 0.21%
 - Average days to reconcile events
 - National average: 2.6 days vs WVUH: 0.6 days
- Standardization across WVUHS with automated dispensing cabinet settings

Regulatory & Compliance

- Approval for a WVUH technician devoted to regulatory and compliance

Expansion of Medication Safety Resources Across WVUHS

- Allison Lawrence now covers Whetzel and Jackson in addition to Camden
- Brett Harmon joined the team and covers UHC, Summersville, Braxton, and St. Joe's
- Christina Deusenberry joined the WVUH team and covers Uniontown, Fairmont Medical Center, behavioral health and ambulatory areas
- Sheena Burwell joined the WVUH team to cover WVUH adult acute care areas
- Melissa REITTER joined the team and covers Wheeling, Barnesville, Harrison, and Reynold's

WVU Medicine
**GOOD CATCH
AWARD**

Lauren Kunkel
FEBRUARY



Kimberly Bowsher
JUNE



Erin McMahan and Alex Shreiber
NOVEMBER





Pharmacy Residency & Education

Pharmacy Interns

Pharmacy interns are employed throughout the hospital to support the functions of the departments in which they are employed while gaining valuable practical experience. Pharmacy interns work directly with patients conducting medication histories and supportive functions. They also participated in clinical activities alongside residents and preceptors.

Pharmacy Students

WVU Hospital's Department of Pharmacy has a strong commitment to education. We offer introductory and advanced pharmacy practice experience (APPE) rotations across all practices. The department also hosts a longitudinal track program designed to prepare APPE students for residency.

184 APPE Rotations	82 Students	78 Preceptors	12 Practice Sites
52 Acute Care Rotations	56 Community & Ambulatory Rotations	76 Administration & Systems Rotations	32 IPPE Rotation

RESIDENCY CLASS 2023 - 2024



The WVU Medicine Pharmacy Residency Program was started in 1985 by then Residency Coordinator, Art Poremba, and accredited by ASHP in 1987. Since the program's inception, nearly 40 classes have completed the program, consisting of over 200 resident alumni. The program continues to gain national exposure, having had residents from schools across the country and an alumni base that ventures out to service patients across the United States.



INPATIENT OPERATIONS

The Pharmacy Operations team oversees the medication use process at WVU Hospitals, ensuring reliable and safe distribution of medications to patients. This team oversees the procurement, storage, preparation, distribution, and delivery of medications throughout WVU Hospitals. Our time and service are dedicated to operating the central pharmacy, including the IV room, controlled substance vault, and perioperative services. The pharmacy operations team is comprised of highly experienced and dedicated technicians, interns, pharmacists, and leaders to meet the needs of patients at WVU Hospitals.



OPERATIONS HIGHLIGHTS

3,927,072
DOSES DISPENSED

Central Pharmacy Operations

- Transitioned dexmedetomidine drips, insulin lispro, meropenem, ampicillin, and doxycycline to Omnicell machines, resulting in substantial cost savings and operational improvements
- Coordinated Patients Own Medication (POM) workflows via lock boxes on each unit with nursing leadership to optimize existing workflow
- Exceeded \$1,000,000 in total cost savings through Omnicell 1 in less than 24 months
- Implemented a dedicated Omnicell machine for code tray / kit workflows as well as established a proactive Code Cart replenishment model on each unit

Sterile Products and Perioperative Services

- Coordinated necessary preparations to be fully compliant with new USP <797> and USP <800> changes effective November 1, 2023
- Implemented new workflows to operationalize a pharmacy-driven blood factor process
- Fully implemented Epic's Dispense Prep automation on all sterile IV preparations for patient specific doses
- Streamlined inventory and medication reordering processes in each pharmacy satellite

Fairmont Medical Center Expansion

- Supported the go-live of 15 Skilled Nursing Unit beds, with 15 additional beds to go live in 2024
- Assisted with the go-live of 2 dedicated endoscopy suites, 8 pre/post beds, and supporting OR expansion plans in 2024
- Construction planning underway for a new inpatient pharmacy in 2026

340B MANAGEMENT PROGRAM

The Enterprise 340B Program Management Team serves to provide system-wide 340B subject matter expertise in key areas of 340B Discount Drug Program implementation and utilization. The Team is responsible for performing all duties associated with administering a compliant 340B Program in alignment with rules and regulations defined by the Health Resources and Services Administration (HRSA) and the Office of Pharmacy Affairs (OPA).

The purpose of the 340B Team is to provide 340B Program oversight, ensure 340B Program compliance through continuous auditing, serve as 340B program experts, determine areas of growth and expansion, and provide collaboration and long-term support to WVU Medicine leadership.

The 340B Management Team is comprised of highly dedicated and knowledgeable individuals that are passionate about the 340B Program.

340B MANAGEMENT PROGRAM

HIGHLIGHTS

\$297M

FINANCIAL 340B BENEFIT

102,075

CLAIMS AUDITED

172

CHILD SITES MANAGED

13

HOSPITAL OWNED RETAIL
PHARMACIES

451

CONTRACT PHARMACIES

20

COVERED ENTITIES



340B MANAGEMENT PROGRAM

Program Compliance:

- Artificial Intelligence (BOT) developed in in conjunction with the WVUHS RPA team to audit 100% of mixed use claims
- Billing process improvements to ensure compliance of Medicaid and Medicare Modifier application rules
- Contract Pharmacy External audit with no findings

Program optimization:

- ESP claims submission of 75,000 claims for 18 hospitals restoring \$81 million in 340B savings at contract pharmacies and Allied Health Solutions
- Manual claim reviews to increase capture resulting in \$480,000 of increased earnings
- New processes developed to increase capture resulting in \$1.33 million of increase earnings
- Creation of contract pharmacy budget for each entity/hospital
- Accounts payable assistance for wholesaler invoice payments

Program Expansion

- Added 5 sites to 340B Program oversight – Grant, Garrett, Princeton, Thomas, and St. Francis
- Added 88 additional Contract Pharmacies in 2023 increasing contribution to \$2.75 million in net margin
- Hired 3 additional 340B Team members to support additional service lines
- Assisted with 4 oncology clean site conversions



SPECIALTY PHARMACY & HOME INFUSION

operated by WVU Hospitals

415K

Miles Driven
by Courier

25,124

Clinical Activities
Documented

180

Specialty Infusion
Patients

WVUH Specialty Pharmacy team is here to provide special handling, packaging, education, and financial assistance for all our patients. We make patient care and safety our number one priority. Our specialty pharmacy team provides clinical expertise to help treat complicated diseases. We work closely with your medical provider to make sure all of your prescription needs are met.



Specialty Pharmacy Services

25,124

Clinical Activities Documented

- 3,160 Patient Therapy Onboarding
- 3,128 Initial Patient Assessments
- 7,604 Treatment Follow-up Reviews
- 3,963 Clinical Interventions
- 7,269 Lab Activities

42,169

Clinical Services

- 28,435 Patient care refills
- 13,734 Prior Authorizations
- Added 3 new clinical service areas
 - Hemophilia, pulmonary Hypertension, and cardiomyopathy
- Added 56 new medications to formulary

\$13.9M

Patient Medication Savings

- \$6,760,383.02 provided through co-pay assistance resources
- \$6,940,238.11 provided in financial assistance
- \$179,855.09 through patient assistance funds & grants
- 88.41% of all patients received a copay less than \$20

50

Medication Therapy Management

- 33 Comprehensive medication review completed
- 17 Targeted intervention program completed

HIGHLIGHTS

- 24 FTE hires in SP and 4 FTE hires in Home Infusion
 - 8 promotions
 - Created new AVP position for Specialty Pharmacy & Home Infusion
 - Created new Manager position for Pharmacy Business
 - Created two new Pharmacy Tech Supervisor Positions (Specialist Technicians and Operations Technicians)
 - Hired new Pharmacy Outcomes Coordinator Pharmacist position.
 - Hired new Pharmacy Compliance Coordinator Pharmacist position.



Specialty Pharmacy Services

Pharmacy Operations

- 31,552 Internal Courier Deliveries
- 414,645 Internal Courier Miles Driven
- Three new Fleet Vehicles added
- 18,626 Third Party Shipments
- Finished year with 180 Specialty Infusion patients

Business Operations

- 7,034 Internal Audits performed
- 30% Reduction in Patient Account Receivables
- 125 External Payer Audits completed with no recoupments or clawbacks
- 67,280 Specialty Pharmacy prescriptions dispensed (13.6% above budget)
- Approximately 4,718 Home Infusion prescriptions dispense
- \$6.4 million in Gross Revenue for Home Infusion
- \$295.2 million in Gross Revenue for Specialty Pharmacy

Conference

- Certified Specialty Pharmacist (CSP)
 - Cystic Fibrosis (Madelyn Harvey)
 - Hepatitis (Rachel Mitchell)
- Posters
 - Samantha Manson's poster presented at National Association of Specialty Pharmacy (NASP) Conference
 - Impact of Pharmacist Intervention on the Collection of SVR Tests in Patients Treated for Hepatitis C at a Health-System Specialty Pharmacy
 - Oncology Team WVU School of Pharmacy APPE Student (Mikaela Kamp) poster
 - Evaluation of Hypertension Rates Among Patients Taking Select Oral Oncolytics
 - Deborah Pope, Madelyn Harvey, and Morgan Petite precepting Marisa Barton's midyear poster:
 - Impact of specialty pharmacist intervention on recombinant zoster vaccine rates of patients taking JAKi
- Presentations
 - o Abbi Blevins - presented a clinical pearl ASHP Summer meeting
 - Management of shortages (Growth Hormone)
 - o Madelyn Harvey's PharmTalk at APhA: Addressing Social Determinants of Health - A partnership between a specialty pharmacy and a patient centered medical home to increase access to vaccinations for Medicare Part D participants

SPECIALTY PHARMACY ACHIEVEMENTS

Achievements

- Ownership Change from Allied Health Services, Inc. to West Virginia University Hospitals, Inc.
- Implemented Epic Willow Ambulatory Point of Sale
- ACHC Specialty Pharmacy and Infusion Services Accreditation Renewal awarded
- Patient Satisfaction Net Promoter Score 86.5 vs Database of 79.0
- 47,515 patient calls received with 96.8% answered in less than 30 seconds
- OSC Expansion for Business Team and Couriers

National Committees

- ACHC accreditation for home infusion with upgraded cleanroom approved by WV BOP and certified through Filtech validation
- Surpassed anticipated volume by having 70 patients on service with 1419 total prescriptions dispensed
- Launched 340B contract pharmacy relationship with WVUH and UHC

New Staff Certifications

- 1 New certified specialty pharmacists (CSP)
 - 6 total CSP
- 1 New Board-Certified Ambulatory Care Pharmacist (BCACP)
 - 2 BCPS
 - 1 BCOP
 - 1 BCACP

SPECIALTY PHARMACY ACHIEVEMENTS

Distinguished Award

- Evan Turco, PharmD, BCPS, pharmacist at Allied Health Solutions/WVU Medicine Specialty Pharmacy and Home Infusion in Morgantown, has been selected as the recipient of this year's Distinguished Young Pharmacist Award from the West Virginia Pharmacists Association.
- The award is given in recognition of excellence and outstanding contributions to the state association and community. Evan was nominated by a former preceptor, and his nomination was reviewed by a committee of seven board members.
- Evan obtained his Doctor of Pharmacy degree from the West Virginia University School of Pharmacy in May 2019. He completed the PGY-1 Community Pharmacy Residency Program through the University of Pittsburgh School of Pharmacy in June 2020, and he began working as a Clinical Pharmacist in the Specialty Pharmacy in January 2021. In August, he began transitioning to a new role as a Pharmacy Compliance Coordinator for Specialty Pharmacy and Home Infusion

**DISTINGUISHED
YOUNG
PHARMACIST**

EVAN TURCO
PharmD



Rx West Virginia
PHARMACISTS
Association



OUTPATIENT PHARMACY SERVICES



The Outpatient Pharmacy Team consists of three retail pharmacies and one Little Mountaineer pick-up location in Morgantown.

We are located on-campus at Ruby Hospital and at the WVU Health & Education Building.

We provide the best care for patients, employees & all guest of WVUM.

We are passionate about providing high-quality care beyond the prescription. We strive to deliver timely, safe, and accurate prescription services, provide patients with education on the importance of their medication and continue our positive financial con contribution.

"Caring Beyond The Rx"



OUTPATIENT PHARMACY BY THE NUMBERS

Medical Center Pharmacy

- Prescriptions filled: 243,811
- Increased volume by 58,125 scripts from 2022
- Highest number of scripts in Dec 2032 with 30,756 Filled

Discharge Pharmacy

- Prescriptions filled: 105,842
- Increased volume by 24,981 scripts from 2022
- Overall prescription capture rate: 65%

Mountaineer Pharmacy

- Prescriptions filled: 85,132
- Increased volume by 16,890 scripts from 2022
- Compliance Packaging Services for over 130 patients

Total Revenue: \$83.5M (27% increase from 2022)



DELIVERY AND MAIL SERVICE **BY THE NUMBERS**

Medical Center Pharmacy

- Prescriptions delivered: 40,491
- Prescriptions mailed: 40,651

Discharge Pharmacy

- Prescriptions delivered: 76,313



Mountaineer Pharmacy

- Prescriptions delivered: 44,602
- Prescriptions mailed: 6,720
- Over 130 patients participate in the Compliance Packaging Program

ANNUAL REPORT 2023

Director: Joedell Gonzaga PharmD; MPH

Managers: Jared Lapkowicz PharmD and Renee Postlethwait PharmD

Technician Supervisors: Michelle Loft CPhT. and Jonathan Waggoner CPhT.

Pharmacy Analyst: Stephen Harper PharmD

Lead Pharmacist: Logan Sanders PharmD; BCPS and Bryan Baker PharmD

Lead technician: Patti Dillow CPhT. and Patti Greathouse CPhT.

Business Coordinators: Kimberly Harper CPhT. And Kathy Nicholson CPhT.



HIGHLIGHTS & ACOMPLISHMENTS

- Improved Meds-to-Beds capture rate to over 65%
- Improved MTM Services by 50% from 2022
- Delivered 86,000 prescriptions across the USA
- Compounded over 4,500 prescriptions
- Over 124,000 delivered prescriptions throughout Morgantown and West Virginia.
- 215,000 scripts picked up at the pharmacy
- Over 52,300 Unique Patients
- Served patients from 47 different states
- Register transactions 152,000
- 4,400 discharge medication consults completed
- 1,819,244 milliliters of liquid dispensed
- 2,216,598 dosage units dispensed
- 5,509 medications compounded
- Over 440,000 prescriptions clinical reviews done by pharmacist
- Over 460,000 prescriptions performed product reviews
- Over \$1.5 Million savings in through optimized drug purchases
- Implemented Prescription Price Consult Program

Employee of the Month

The program was started newly this year in 2023 to recognize Department of Pharmacy team members for their exceptional service. Rolling nominations may be submitted by any pharmacy employee, and one nominee is selected on a monthly basis by the Pharmacy Administration team.

February

Patty Valdez, CPhT



March

Kala Rorabaugh, PharmD, BCPPS



April

Jess Peaslee, PharmD



May

Lee Attardi, CPhT



Employee of the Month

June

Stacey Rose, CPhT-Adv, CSPT



July

Emma Platt, PharmD



August

Stephanie Bennett, CPhT



September

**Michelle Howerton, PharmD,
BCACP, BCGP**



Employee of the Month

October

Katie Tennant, CPhT



November

Danielle Nichoson, CPhT



December

Channing Randolph, CPhT



Leadership Team

Chief Pharmacy Officer & System Vice President



Todd Karpinski
PharmD, MS, FASHP, FACHE

Assistant Vice Presidents



Daniel O'Neil
PharmD, MS, FASHP
West Virginia University Hospitals



Louie Sokos
BS Pharm, MBA
Specialty & Home Infusion Services

Directors of Pharmacy



Jordan Carter
PharmD, MS
Inpatient Operations



Dave Cecere
PharmD, MBA, FACHE
Business Operations



Maria Cumpston
PharmD, CPPS
Medication Safety & Compliance

Leadership Team

Directors of Pharmacy



Karen Dusci-Famoso

BS Pharm, MBA
Compliance & 340B



Joe Gonzaga

PharmD, MPH
Retail Pharmacy Services



Derek Grimm

PharmD, BCPS
Medication Use



Courtney Sweet

PharmD, BCPPS
Pediatric Pharmacy Services



Dmitry Walker

PharmD, MS
Oncology & Investigation Drug Services



Casey Yokum

PharmD
Specialty Pharmacy Services

Assistant Directors of Pharmacy



Autumn Petersen

PharmD, MPH, MS, BCPS
Inpatient Operations



Marc Phillips

PharmD, CPHQ, 340B ACE
Supply Chain & Procurement



Jessica Stewart

PharmD, CSP
Specialty Pharmacy Services

Leadership Team

Pharmacy Managers



MJ Braham

PharmD, MHA
Central Operations &
Controlled Substances



Micah Butcher

PharmD, BCPPS
Pediatrics Pharmacy Services



Jessica Calderone

BS, 340B ACE
340B Mixed Use



Staci Czyzewski

BS
Business Operations



Alexis Galloway

MBA, 340B ACE
340B Retail



Lisa Garavaglia

PharmD, BCPPS
Pediatrics Pharmacy Services



Bradley Gutta

PharmD, MHA, BCPS
Sterile Products &
Perioperative Services



Will Hammonds

PharmD, MS, BCPS
Ambulatory & Transitions of Care



Meaghan Hansen

PharmD, BCPS
Oncology & Investigational
Drug Services

Leadership Team

Pharmacy Managers



Amanda Hunn

MBA-Hm, CPhT
Specialty Pharmacy Services



Mike Konietzko

PharmD, MS, BCPS
Adult Critical Care, ED, & Surgery



Jared Lapkowicz

PharmD
Retail Pharmacy Services



Ashlee McMillan

PharmD, BCACP
Residency & Education



Rachel Mitchell

PharmD, BCPS, CSP
Specialty Pharmacy Services



Kelli Phipps

PharmD
Adult Medicine & Cardiology



Renee Postlewait

BSP Pharm
Retail Pharmacy Services



Jalyn Robinson

PharmD, CSP
Home Infusion

PUBLICATIONS

Barrett C. Precision medicine - challenges and considerations for the oncology pharmacist. HOPA News. December 2023;29(4):33-34.

Blakely ML, Chahine EB, Emmons RP, Gorman EF, Astle KN, **Martello JL**, Mattingly TJ, Nogid A, Pick A, Law Anandi V. AACP Faculty Affairs Standing Committee Report of Strategies for Faculty Self-Advocacy and Promotion. Am J Pharm Educ. 2023;87(8):100045.

Bondi DS, Acquisto NM, Buckley MS, Erdman G, Kerns ST, Shogbon Nwaesei AS, Szymanski TW, Walkerly A, Yau AS, Martello JL. Rewards, Recognition, and Advancement for Clinical Pharmacists. J Am Coll Clin Pharm. Available Online March 2023.

Digman A, Barrickman A, Goodhart A, Whetsel T. Student knowledge, confidence, and perceptions prior to and following an inhaler and tobacco cessation simulation. Urr Pharm Teach Learn. May 2023.

Gillins DA, Hutton M, Buckel WR. Antibiotic prescribing for adults with group A streptococcal bacteremia in a large healthcare system. Antimicrobial Stewardship & Healthcare Epidemiology. 2023;3(1):e170. doi:10.1017/ash.2023.449

Hardy ME, Kenney RM, Tibbetts RJ, Shallal AB, Veve MP. Leveraging stewardship to promote ceftriaxone use in severe infections with low- and no-risk AmpC Enterobacterales. Antimicrob Agents Chemother. 2023 Nov 15.

Hayes SM, Moore DC, Droney M, Johnson S, Rech MA, Rife K, Rosewarne R, Silvia R, **Szymanski TW**. Professional and career development needs of clinical pharmacists in non-academia settings. J Am Coll Clin Pharm 2024. [In Press]

Hill J. Stepping Out of Your Comfort Zone: Lessons from a First-time BCOP Presenter. HOPA News. 2023;20(3):11-12.

Kido K, Fang W, **Broschious R**, **Colvin B**, Kamal K, Bianco C, Caccamo M, Felpel K, Sokos G. Evaluation of a pharmacist-provider collaborative clinic for treatment of iron deficiency in patients with heart failure. Am J Health Syst Pharm. 2023 Sep 22.

Kinney A, **Scherrer N**, Sarkar S, Jain P, Wen S, Hadique S. β -Lactams plus doxycycline versus azithromycin for treatment of severe community-acquired pneumonia in critically ill patients. JAC. 19 Sep 2023.

Lacoste JL, Avalon JC, Ludhwani D, Conte J, Perkowski G, Patel B, Courser A, Balla S. Comparative effectiveness of direct current cardioversion in patients with atrial fibrillation and obesity with body mass index ≥ 50 kg/m². Am J Cardiol. 2023 Sept 15.

Lee S, Wu BY, Suter K, Lokant MS, **Ward A**, **Spigelmyer A**, Thompson JM, Demkowicz R, **Howard C**, LaSala R, Reece R. Clinical outcomes with implementation of Accelerate Pheno blood culture detection system for gram-negative bacteremia. American Journal of Laboratory Medicine. 2023; 8(3): 27-34.

PUBLICATIONS

Martin AM, DeVine MN, Kempa M, Parker S, MacBrayne CE. Microbiology culture results and antibiotic prescribing in patients with lymphadenitis. *Hosp Pediatr*. 2023;13(2):e29-e33.

Mehta M, Benning M, Johnson JE, Ryan K. Facilitating outpatient parenteral antimicrobial therapy in rural areas. *Ther Adv Infect Dis*. 2023 Nov 8.

Mehta M. Oral antibiotics in osteomyelitis. *Infectious Diseases Self-Assessment Program (IDSAP)*. Book 1. SSTI, bone and joint infections and outpatient antimicrobial stewardship. Book Chapter. 2023 May 15.

Moss A, **Moyer C**, Pitterle A, Dunkerson F, Portillo E, Wopat M. Student pharmacist-led fish oil deprescribing initiative at a Veterans affair hospital and rural clinics. *Innov Pharm*. 2023 Oct 27.

Oblizajek NJ, Phillips MA, Cecere DA, Braham MJ. Implementation and evaluation of standardized drug expiration processes across non-automated areas. *Hospital Pharmacy*. 2023;0(0). doi:10.1177/00185787231218947

O'Neil DP, Henderson JM, Gifford HR, **Karpinski TA**, Kaminsky L. Building a pharmacy technician structure for the future: A lesson from a multihospital academic health system. *Am J Health Syst Pharm*. 2023 Feb 21;80(5):304-311.

Petrone S, **Whiteman M**, Gupta S. Azithromycin Prescriptions in Children From 2016-2018: Room for Improvement. *Clinical Pediatrics*. 2023;0(0). doi:10.1177/00099228231206200

Platt E, Neidhardt J M, End B, Cundiff C, Feng W, Kum V, Tucker H, **Quedado JM**. (June 12, 2023) Safety and Efficacy of Low-Dose Versus High-Dose Parenteral Ketorolac for Acute Pain Relief in Patients 65 Years and Older in the Emergency Department. *Cureus* 15(6): e40333. doi:10.7759/cureus.40333. 2023 June 12.

Rockhold M, Kunkel L, Lacoste J, Szymanski T, Rothenberg P, Zimmerman P, Minc S. Comparison of Direct Oral Anticoagulants and Warfarin in Chronic Limb-Threatening Ischemia. *Journal of Vascular Surgery*. Publication Pending.

Seago K, Goodner J, Dillaman M, Wen S, Veltri L, Ross K, **Cumpston A**. Evaluation of a prolonged magnesium infusion of prolonged magnesium infusion after allogeneic hematopoietic cell transplant. *Supportive Care in Cancer*.2024;32:49.

Stewart, AW. Allopurinol for Skewed Mercaptopurine Metabolism. *COG Pharmacy Newsletter*. July 2023;3(3).

Troyer BS, **Kovacic Scherrer N, Garavaglia J**. Tocilizumab Versus Baricitinib for the Treatment of COVID-19 in Patients With Obesity. *J Pharm Pract*. 2023 Feb 19:8971900231158931. doi: 10.1177/08971900231158931. Epub ahead of print.

Wietholter JP. Chapter 116: Vitamin B12 Deficiency. In: *Pharmacotherapy Casebook: A Patient-Focused Approach*. 12th ed. New York: McGraw-Hill, 2023: 303-305.

Wietholter JP. Chapter 110: Allergic Rhinitis. In: *Pharmacotherapy Casebook: A Patient-Focused Approach*. 12th ed. New York: McGraw-Hill, 2023: 287-289.

Wietholter JP. Chapter 66: Primary Open-Angle Glaucoma. In: *Pharmacotherapy Principles & Practice Study Guide: A Case-Based Care Plan Approach*, 6th ed. New York: McGraw-Hill, 2023. Online via Access Pharmacy, <https://ppp-mhmedical-com.soleproxy.hsc.wvu.edu/>

PRESENTATIONS

Anderson M, Sexton A, Lawrence A, West M. Impact of dexamethasone pre-medication regimens on paclitaxel infusion reactions at WVU Medicine Camden Clark Medical Center. Poster presentation at Hematology Oncology Pharmacist Association Annual Conference. Phoenix, AZ. March 2023.

Anderson M, Seago K, Yingling S. Updates in CAR T – Cell Therapy at WVU Medicine. Continuing education presentation at WVU Medicine Health System – Virtual. Morgantown, WV. November 2023.

Anderson M, Cumpston A, Yingling S, Seago K. Implementation of a daratumumab premedication elimination protocol at WVU Medicine. Poster presentation at Vizient University Health System Consortium Pharmacy Network Meeting. Las Vegas, NV. December 2023.

Ball N, Kinney E, McMahan E, Wietholter JP. Inpatient ordering of inhaled corticosteroid therapy without prior to admission use in patients with Group B chronic obstructive pulmonary disease. Vizient Poster Session at the 2023 ASHP Midyear Clinical Meeting, Poster #27A. Anaheim, CA: December 2, 2023.

Barrett C. The role of immunotherapy in head and neck cancer – current practice and future possibilities. Virtual BCOP- and ACPE-accredited presentation for HOPA BCOP Updates Course. July 2023.

Barrett C. Oral anticancer therapies – clinical pearls for the non-oncology pharmacist. ACPE-accredited presentation at Ohio-Marshall County Pharmacist Association Spring Seminar. March 2023.

Barton M, Harvey M, Pope D, Petite M. Evaluation of Herpes Zoster Vaccination Rates in Inflammatory Disease Patients on JAK Inhibitors. Poster presentation at Vizient University Health System Consortium Pharmacy Network Meeting. Anaheim, California. December 2023.

Barton M. Hepatitis C Treatment: Adherence Review. Presentation for health care providers at a West Virginia Project ECHO Hepatitis C/HIV Meeting. September 2023.

Barton M. Schizophrenia and Bipolar Disorder: A Review and Update of Treatment Management. WVU Medicine Health System Continuing Education Series. December 2023.

Barrickman A, Maynor L, Galvez M, **McMillan A.** Pharmacy student perceptions of academically dishonest behavior in skills activities at the American Association of Colleges of Pharmacy Annual Meeting. Aurora, CO. July 2023.

Bok R, Lacoste J, Lutz G, Kido K. Impact of beta blocker continuation on tachyarrhythmias in patients admitted with acute decompensated heart failure. Platform presentation at Eastern States Residency Conference. Hershey, Pennsylvania. May 2023.

Bowen M, Sweet C, Garavaglia L. Evaluation of liposomal bupivacaine (Exparel) in pediatric patients. Poster session presented at the American Society of Health-System Pharmacists Midyear Clinical Meeting. 2023 December 2.

Braham M, Lee L, Nei S, Swarthout M, **Walker D.** Pharmacy Workforce Retention and Engagement. Vizient Pharmacy Network live webinar. Recorded as part of the Vizient Pharmacy Network Professional Development and Workforce 2022-2023 webinar series. April 2023.

Carter J, Braham MJ. Leveraging Prescriptive Analytics to Achieve Inventory Outcomes. Podium Presentation at Omnicell Illuminate Conference. Houston, TX. June 2023.

Chiplinski A, Keeting T. The utility of an INR and best practice for monitoring DOAC therapy. Poster presentation at the Anticoagulation Forum National Meeting. San Francisco, CA. April 2023.

Colvin B. Dyslipidemia management beyond the heart transplant patient. WVU Medicine Transplant Alliance Education. January 2023.

PRESENTATIONS

Colvin B. Heart failure education: heart failure medications. WVU Medicine Nursing Continuing Education Series. July-September 2023.

Costa E, Edwards S, Petros K. Evaluation of Clindamycin versus Linezolid for Necrotizing Skin and Soft Tissue Infections. Poster session presented at Vizient Pharmacy Network Meeting; Anaheim, CA. December 2023.

Dykstra LP, **Wietholter JP.** Predicting INR trends in newly initiated patients based on average percent change in steady-state warfarin dose. 2023 ACCP Annual Meeting on Clinical Pharmacy, Poster #7. Dallas, TX: November 12th, 2023.

Grimm DL. The Intersection of Formulary Management, Technology, and Pharmacogenomics to Maximize Patient Care. ACCP Annual Meeting. November 12, 2023. Dallas, TX.

Howard C, Grimm DL. Implementation of an Antimicrobial Stewardship Toolkit and Workshop in a Rural Health System. Premier Breaththroughs23. June 22, 2023. Nashville, TN.

Kiss Z. Evaluation of Pegfilgrastim Use for Home Administration at WVU Medicine Children's 2023 Vizient Consortium Pharmacy Network Meeting and 2023 ASHP Midyear Clinical Meeting in Anaheim, CA, December 2023.

Gajda E, Pham K, Sokos D. Evaluation of Site of Care Optimization for the Use of IVIG. Poster presentation at Vizient University Health System Consortium Pharmacy Network Meeting. Anaheim, CA. December 2023.

Gallagher CM, Monroe G, Hartzell M, Inderbitzen-Fischer S, Hill J, Kurian S, Patel B. Rates of Cardiotoxicity in Patients Receiving Chemo-immunotherapy with Anthracyclines Alone. Hematology/Oncology Pharmacy Association 2024 Annual Conference. April 2024.

Gallagher CM, Yingling SK, Cumpston A, Seago K. Financial Impact of Outpatient Home Health Infusion Blinatumomab Initiation. Vizient Midyear Conference 2023.

Gallagher CM. DOACs in Cancer. WVU Medicine - WVU Hospitals. October 2023.

Germani J, **Schauble R, Kido K,** Sokos G, Jalil B, Caccamo M. Successful transition from oral treprostinil to selexipag in two patients with pulmonary arterial hypertension in a rural care setting: case series. Poster presentation at Pulmonary Hypertension Association PH Professional Network Symposium. Arlington, VA. September 2023.

Gunzenhauser S, Rorabaugh K, Stewart A. Evaluation of Pediatric Patients Prescribed Anticoagulants at Discharge at WVU Medicine Children's Hospital. Vizient Pharmacy Network Meeting. Anaheim, California. December 2023.

Hammonds WH, O'Neil DP, Street AF. Innovative Pharmacy Technician Service Models. American College of Clinical Pharmacy Annual Meeting 2023. Dallas, Texas.

Hardy ME. Leveraging stewardship to promote narrower-spectrum antibiotic use for low-risk Amp C Enterobacteriales. Oral abstract presentation at ID Week. Boston, MA. October 2023.

Heng YF, Martin A, Butcher M. Evaluation of enteral sodium chloride dosing in the neonatal intensive care unit. Poster presentation at Vizient Member Networks Pharmacy Network Meeting. Anaheim, California. December 2023.

Hill J. Updates in Management of Early-stage Breast Cancer. Board Certified Oncology Pharmacist continuing education presentation at Hematology/Oncology Pharmacy Association Annual Conference. Phoenix, AZ. March 2023.

PRESENTATIONS

Hill J. Promoting Adherence in Early-Stage HR+/HER2- Breast Cancer: The Value of Oncology Pharmacists in Preventing Treatment Discontinuation. ACPE continuing education presentation. Oncology State Societies Regional Conference - Virtual. April 2023.

Hill J. Advanced/Metastatic Triple Negative Breast Cancer: Adverse Events and Management. ACME continuing education presentation. Perspectives in Breast Cancer Care - Medscape LIVE conference. Chicago, IL. November 2023.

Johnston E, Shigle AJ, Zarfoss E. Tobramycin Administration within Intensive Care Units. Poster presentation at Vizient University Health System Consortium Pharmacy Network Meeting. Anaheim, California. December 2023.

Kan A, Smith L, Whiteman M. Evaluation of vancomycin dosing in pediatric patients in the cardiac intensive care unit. Poster presentation at Vizient Pharmacy Network Meeting. Anaheim, California. December 2023.

Kielkowski B, Platt E, Rose K. Appropriate Utilization of Eculizumab (Soliris®) for Inpatient Use. Poster presentation at Vizient University Health System Consortium Pharmacy Network Meeting. Anaheim, California. December 2023.

Kinney A. ABCs of code blue MEDs over Live CE via PharmCon. Virtual. March, July, October, December 2023.

Liu S, Digman A, Broscious R. Evaluating anti-TNF alpha agent prescribing in patients with inflammatory bowel disease and heart failure. Poster presentation at Vizient University Health System Consortium Pharmacy Network Meeting. Anaheim, California. December 2023.

Lusk K, Spigelmyer A. Evaluation of fecal microbiota transplant utilization for recurrent Clostridioides difficile infection at an academic medical center. Poster presentation at ASHP Midyear Clinical Meeting. Anaheim, California. December 2023.

Mehta M, Johnson JE, Tedeschi C. OPAT: SNFing out a solution. OPAT Chat Meeting. Presented virtually. November 2023.

Miller J, Johnson H, Goodhart A. Optimal RAAS Therapy for Patients with Heart Failure. Research poster presented at Vizient annual meeting; Dec 2023

Moyer CM, McMahan ER, Oblizajek NJ. Evaluation of infliximab and rituximab in the acute care setting. Presented at the 2023 Vizient Pharmacy Network Meeting, Anaheim, California, December 2, 2023.

Moyer CM, McMahan ER, Oblizajek NJ. Evaluation of infliximab and rituximab in the acute care setting. Presented at the 2023 Vizient Pharmacy Network Meeting, Anaheim, California, December 2, 2023.

Oblizajek NJ, Phillips MA, Cecere DA, Braham MJ. Implementation and evaluation of standardized drug expiration processes across non-automated areas. Presented at the 2023 Eastern States Conference for Pharmacy Residents, Hershey, Pennsylvania, May 10, 2023.

O'Neil DP. Pharmacy Technician Structures for the Future. Networking Roundtable. Anaheim, California. American Society of Health-System Pharmacists Midyear Clinical Meeting 2023. Anaheim, California.

Painter MA, Quinn H, Kocher B, Morise A, and Courser A. Success Rate of PCSK9i Therapy in Patients Seen at an Interprofessional Lipid Clinic. ASHP Summer Meeting, Baltimore, MD. Jun 2023.

Painter MA and Kocher B. Sticky Situations – An Ambulatory Care Pharmacist's Take on Lipid Management. ASHP Ambulatory Care GEMS Part 1 Virtual CE Presentation. Jun 2023.

PRESENTATIONS

Rockhold M, Kunkel L, Lacoste J, Szymanski T, Rothenberg P, Zimmerman P, Minc S. Comparison of Direct Oral Anticoagulants and Warfarin in Chronic Limb-Threatening Ischemia. Poster presentation 2023 American College of Cardiology Annual Scientific Session & Expo. New Orleans, LA. March 2023.

Seago K, Safi S. Updates in CAR T-cell Therapy. Virtual Presentation at Medicine Grand Rounds. WVU Medicine Health System Virtual Platform.

Shahan D, Embrey S, McMahan E. Naloxone prescribing practices for patients discharged on ≥ 50 morphine milligram equivalents. Poster presentation at Vizient University Health System Consortium Pharmacy Network Meeting. Anaheim, California. December 2023.

Sibbesen J, Embrey S. Blood factor product management by pharmacy saves resources and decreases costs. Poster presentation at American College of Clinical Pharmacists Annual Meeting, Dallas, Texas. November 2023.

Sibbesen J. Overview of biologics and biosimilars. Continuing education at WVU Medicine. September 2023.

Spigelmyer A. Where do we go now? Pearls for antimicrobial de-escalation, dose optimization, and duration of therapy. ACPE Accredited Continuing Education. WVU Medicine Foundations of Antimicrobial Stewardship Seminar. May 2023.

Tedeschi C, Hoff A, Shigle A, Scherrer N, Burwell S. Duration of spontaneous bacterial peritonitis prophylaxis in patients with acute variceal hemorrhage. Poster presentation at IDWeek. Boston, Massachusetts. October 2023.

Tedeschi C, Mehta M, Slain D, Johnson J. Evaluation of care transitions in patients discharged to skilled nursing facilities (SNFs) on outpatient parenteral antimicrobial therapy (OPAT). Poster presentation at Vizient University Health System Consortium Pharmacy Network Meeting. Anaheim, California. December 2023.

Trayter T, **McMillan A**, Johnson H. Influence of PHAR 793E on Student Competency within the Eight Domains of Wellness at the American Association of Colleges of Pharmacy Annual Meeting. Aurora, CO. July 2023.

Trickett, H. Leveraging Cost-Savings for Clinical Practice Systemization and Service Line Growth. Platform presentation at Premier Breakthroughs Conference. Nashville, Tennessee. June 2023.

Vargo L, Hill J, Heise C. Evaluation of the Use of Dronabinol with Immunotherapy in Cancer. Poster presentation at Vizient University Health System Consortium Pharmacy Network Meeting. Anaheim, CA. December 2023.

Vest TA, Gazda NP, **O'Neil DP.** Practice-enhancing publications about the medication-use process in 2021. American Society of Health-System Pharmacists Midyear Clinical Meeting 2023. Anaheim, California.

Walker D, Phillips M, Gross C. So Many Drug Shortages...How Do We Minimize their Impact on Oncology Patient Access to Therapy? Presented as part of the WVU Fall Cancer Conference. Morgantown, WV. October 2023.

Whiteman M. It's the Little Things in Life: A Crash Course into Pediatric Infectious Diseases. Platform presentation to WVU Medicine System Infectious Diseases Pharmacists and Physicians. May 2023. Virtual Presentation presented at Jackson General Physician Department Meeting. September 2023.

Yingling S. Pharmacy Times Clinical Forum: Effective Treatment of Chronic Graft Versus Host Disease (cGVHD). Detroit, MI. December 2023.

AWARDS & OTHER RECOGNITIONS

Noah Ball, PharmD

- Adult Medicine PRN Top Resident/Fellow Research-in-Progress Poster at 2023 ACCP Annual Meeting

Anastasia Digman, PharmD, CTTS

- ASHP Podcast Speaker: Optimizing Patient Care through Clinical Pharmacy Collaborations

Meera Mehta, PharmD, BCIDP

- Created Infectious Conversations podcast released on a monthly basis in “The Wright Stuff”

Nate Oblizajek, PharmD, BCPS and Khoa Pham, PharmD

- WVU Master of Health Administration Executive Case Competition First Place

Emma Platt, PharmD

- WVU Hospitals Department of Pharmacy Employee of the Month July 2023

Kala Rorabaugh, PharmD, BCPPS

- Bravo! Unsung Hero
- Bravo! Excellence in Patient Care and Service
- Bravo! Best of the Best Excellence in Patient Care and Service

Hannah Trickett, PharmD, BCPS

- WVU Medicine Bravo Annual Award Top Performance Improvement Team - Perioperative Anticoagulation Management

Matt Whiteman, PharmD, BCPPS

- 2022-2023 WVU Medicine Pharmacy Residency Program Preceptor of the Year

Spencer K. Yingling, PharmD, BCOP

- American Society for Transplantation and Cellular Therapy (ASTCT) 2024 Tandem Meetings \$1,500 Travel Grant

Erika Zarfoss, PharmD, BCPS, BCCCP

- WVU Hospitals Good Catch Award
- Continued Commitment to Safety Award

COMMITTEE APPOINTMENTS

Advanced Topics for Oncology Pharmacy Professionals (ATOPP)

- Dmitry Walker, PharmD, MS - Planning Committee (Co-chair)

American Association of Colleges of Clinical Pharmacy (AACCP)

- Ashlee McMillan, PharmD, BCACP -
 - Laboratory Special Interest Group (Chair)
 - Laboratory SIG Nominations Committee (Chair)

American College of Clinical Pharmacy (ACCP)

- Bailey Colvin, PharmD, BCCP -
 - Budget and Finance Committee - Cardiology PRN
 - Professional Development Committee - Education and Training PRN
- Matthew Rockhold, PharmD - Communications and Social Media Committee (Subcommittee Lead) - Cardiology PRN
- Kelsea Seago, PharmD, BCOP - Recertification Course Peer Reviewer on Chronic Leukemias
- Tom Szymanski, PharmD, BCCP, BCCCP - Task Force on Member Engagement (Vice-Chair)
- Jon P. Wietholter, PharmD, BCPS, FCCP
 - External Affairs Committee, Adult Medicine PRN (Vice-Chair)
 - Nominations Committee, Adult Medicine PRN (Past Chair)

American Pharmacists Association (APhA)

- Julia Miller, PharmD - Pharmacy Residency Member Engagement Subcommittee

American Society of Health-System Pharmacists (ASHP)

- Ben Bredhold, PharmD, BCPS - Section of Pharmacy Educators Advisory Group on Development of Post-Graduate Education and Learning Experiences
- Emily Gajda, PharmD - Pharmacy Administration & Leadership Residents Collaborative
- Derek Grimm, PharmD, BCPS - Advisory Group on Business Development and System Integration, Section of Pharmacy Practice Leaders
- Nate Oblizajek, PharmD, BCPS - Pharmacy Administration & Leadership Residents Collaborative
- Dan O'Neil, PharmD, MS, FASHP -
 - Section Advisory Group on Strategy & Industry Disrupters (Vice-Chair), Section of Pharmacy Practice Leaders
 - Council on Pharmacy Management
- Kelsea Seago, PharmD, BCOP - AJHP Peer Review Panel
- Tom Szymanski, PharmD, BCCP, BCCCP -
 - Educational Steering Committee, Section of Clinical Specialists and Scientists
 - Council on Therapeutics
- Hannah Trickett, PharmD, BCPS - Section Advisory Group for Medication Management
- Dmitry Walker, PharmD, MS - Section Advisory Group for New and Emerging Leaders

American Society for Transplantation and Cellular Therapy

- Mallori Anderson, PharmD - Fundamentals Planning Committee
- Spencer K. Yingling, PharmD, BCOP - Education Working Committee

Association of Community Cancer Centers (ACCC)

- Kelsea Seago, PharmD, BCOP - Operational Insights for the Delivery of Bispecific Antibodies in Solid Tumor Task Force

Board of Pharmacy Specialties (BPS)

- Meera Mehta, PharmD, BCIDP - Board Certified Infectious Diseases Pharmacists Specialty Council
- Kelsea Seago, PharmD, BCOP - Board Certified Oncology Pharmacist Exam Specialty Council

COMMITTEE APPOINTMENTS

Children's Oncology Group (COG)

- Aaron Stewart, PharmD, CTTS -
 - Study Pharmacist for ACNS2232
 - Member Engagement Committee
 - Program Planning Committee

Hematology Oncology Pharmacist Association (HOPA)

- Mallori Anderson, PharmD - Residency SIG Committee
- Christine Barrett, PharmD, BCOP - BCOP Self-Study & Webinar Courses Subcommittee
- Jordan Hill, PharmD, BCOP - Outreach Committee (Past Chair)
- Kelsea Seago, PharmD, BCOP - Research and Grant Reviewers Committee - HOPA
- Spencer K. Yingling, PharmD, BCOP - Affairs Committee

International Society of Heart and Lung Transplantation

- Bailey Colvin, PharmD, BCCP - Programming Planning Committee, Pulmonary Vascular Disease

Kappa Psi Pharmaceutical Fraternity

- Skye Edwards, PharmD, BCCCP - Mountain East Province Professional Development Committee

Society of Critical Care Medicine (SCCM)

- Nicole Kovacic-Scherrer, PharmD, BCCCP -
 - Programming Committee
 - Clinical Pharmacy and Pharmacology Section

Vizient Pharmacy Network

- Marisa Barton, PharmD - Ambulatory Pharmacy Development Committee
- Charles M. Gallagher - Cancer Care Committee
- Julia Miller, PharmD - Ambulatory Pharmacy Development Committee
- Nate Oblizajek, PharmD, BCPS - Pharmacy Practice Advancement Committee
- Khoa Pham, PharmD - Professional Development and Workforce Committee
- Kala Rorabaugh, PharmD, BCPPS - Pediatric Committee Medication Safety (Co-Chair)
- Kelsea Seago, PharmD, BCOP - Cancer Care Committee
- Hannah Trickett, PharmD, BCPS - Business of Pharmacy Enterprise Committee
- Dmitry Walker, PharmD, MS - Professional Development and Workforce Committee (Vice Chair)

West Virginia Pharmacists Association (WVPA)

- Christine Barrett, PharmD, BCOP
 - Board Member, Director-at-Large
 - Annual Conference Programming Committee (Co-Chair)

WVU School of Pharmacy

- Jon P. Wietholter, PharmD, BCPS, FCCP
 - Faculty & Staff Self-Study Committee (Co-Chair)
 - Diversity, Equity, and Inclusion Committee
 - Curriculum Committee
 - Schoolwide Faculty Evaluation Committee
 - Clinical Pharmacy Department Faculty Evaluation Committee

WVUH Committees

- Andrew Allison, PharmD, BCPPS -
 - Pharmacy Code Blue Committee
 - Hospital Code Blue Committee
- Anna Digman, PharmD, CTTS - Ambulatory Practice Council (2023-2024 Co-Chair)
- Matt Whiteman, PharmD, BCPPS - Pediatric Antimicrobial Stewardship Committee (Co-Chair)
- Kala Rorabaugh, PharmD, BCPPS - Children's Employee Experience Board (Secretary)

NEW CERTIFICATIONS

ASHP Medication Safety Certificate

- Jennifer Shahan

ASHP Non-Malignant Hematology Certificate

- Emma Platt

Board Certified Critical Care Pharmacist (BCCCP)

- Skye Edwards
- Jacob Gregory
- Tom Szymanski

Board Certified Emergency Medicine Pharmacist (BCEMP)

- Alex Ponce

Board Certified Infectious Diseases Pharmacist (BCIDP)

- Dave Gillins

Board Certified Pharmacotherapy Specialist (BCPS)

- Ryan Bok
- Miranda Norvell
- Nate Oblizajek

Board Certified Sterile Compounding Pharmacist (BCSCP)

- Zachary Griffith

Certified Professional in Patient Safety (CPPS)

- Stacy Hester

Certified Tobacco Treatment Specialist (CTTS)

- Anna Digman

Diplomate of the American Board of Applied Toxicology (DABAT)

- Alex Ponce







