



2024 ANNUAL REPORT

DISPENSING QUALITY AND EXCELLENCE

CPO Message



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It is my distinct pleasure to present the Fiscal Year 2024 Pharmacy Annual Report for University of California Davis Health. This report highlights the exceptional work of our UC Davis staff and the successful initiatives that continue to transform the quality of pharmaceutical care for our patients. These remarkable accomplishments are detailed within the report, organized by service areas and program categories.

While the immediate challenges of COVID-19 have passed, our healthcare system continues to feel its financial impacts alongside the evolving landscape of healthcare. Our staff remains committed to providing care as if every patient were a member of their own family. This year, we proudly opened our new Shared Service Center, expanding our capacity to reach and care for even more patients

who might not have been able to access our services otherwise. Beyond facility projects, we have enhanced our clinical services and built upon our foundational strengths, all while ensuring our fiscal responsibility as an organization. Though we have had to make difficult decisions over the past year, the needs of our staff and patients have always remained at the forefront.

I encourage you to take some time to review the FY24 Annual Report and celebrate the achievements of our department and your peers. We will face new challenges this year as we continue to uphold the values of UC Davis Health, but together, I am confident that we will succeed. I want to extend my sincere gratitude to each and every member of the staff for their unwavering commitment to the profession and their dedication to the care of our patients.

How We Work



MISSION

Provide the highest quality and most cost-effective pharmaceutical care in an environment that fosters efficient patient-focused care, education, and research.



VISION

Providing patient-centered, proactive, and innovative pharmaceutical care.



STRATEGIC PILLARS

- Clinical Services
- Operational Excellence
- People
- Financial Stability
- Innovation



VALUES

- Kindness
- Trust
- Inclusion

BREAKING NEWS

Grand Opening: Pharmacy Shared Services Center (PSSC)

Pharmacy Shared Services Center (PSSC) is a state-of-the-art facility offering specialized conveyance (Health Solutions Pharmacy), distribution (supply chain), and clinical care areas (specialty pharmacy and home infusion). PSSC is an 80,000 square feet high-security warehouse serving all of UC Davis Health's clinical care areas. UC Davis welcomed this building in March 2024.



Table of Contents

01.

Acute Care Clinical Services

02.

Medication Safety, Policy & Quality Assurance

03.

Diversion, Automation, Information and Analytics (DAIA)

04.

Acute Care Operations

05.

Perioperative Services

06.

Education and Training Programs

07.

Ambulatory Care Clinical Services

08.

Retail Services

09.

340B

10.

Home Infusion

11.

Business Services

12.

Specialty Pharmacy

13.

Committee Appointments, Presentations, Publications, and Awards

Acute Care Clinical Services

Provide care to adult patients on medical and surgical units throughout the hospital including general medicine, hospital medicine, women's health, family medicine, neurology, surgical and orthopedic trauma, neurosurgery and more. Our pharmacists hold board certifications in multiple specialties and provide representation on various committees such as UC Transition of Care Collaborative, Pharmacy Research Oversight Committee, Clinical Practice Council, Pain and Sedation Committee, NPMS, Falls, and NICHE. In support of health system initiatives, the Internal Medicine and Surgery Pharmacists provide support to nurses and providers, verify medication orders, manage comprehensive medication monitoring, participate in multidisciplinary care & discharge rounds, complete patient education for high profile anticoagulation medications, and expanded coverage of discharge medication reconciliations. Precepting pharmacy students and PGY1 and PGY2 residents remains an integral component to upholding UC Davis Health academic excellence.

Internal Medicine and Surgery

16

Board Certifications

10

Hospitalist Teams

5

Apples for Preceptors

238

Admission Med Recs

5

Gen-Med Teaching Teams

1,314

Discharge Med Recs

July - Sept



Critical Care

The critical care pharmacy team provides clinical and operational support for a range of patient populations. Team initiatives included Pharmacist Co-managed insulin dosing, post-intubation sedation optimization, VTE chemoprophylaxis (trauma), fixed-dose Kcentra, and supported launch of new liver transplant service.



Not Pictured: Jin Lee, Erin Louie, Brittany Verkerk, Amarachi Uzosike, Spencer Hayashi



**25 Committees: 5
Nationally; 20 UCDH**



8 National Awards



**8 National
Presentations**



**15th Residency Class
for PGY-2 Critical
Care**



**9 Peer-Reviewed
Publications**



**9 Board Certified
Critical Care
Pharmacists**

Top Quartile performer in Glycemic Control per Society of Hospital Medicine!

Pediatrics

The Children's Hospital Pharmacy Team supports the 121 bed Children's Hospital which includes:

- 24-bed pediatric & cardiac ICU
- 49-bed level four neonatal ICU
- Children's Surgery Center
- Pediatric Emergency Department

Subspecialties include:

- Anticoagulation
- Antimicrobial stewardship
- Oncology/chemotherapy
- Parenteral nutrition

The pharmacists participate in multi-disciplinary rounds, optimizing medication therapy for neonatal/pediatric patients



12

Guidelines, Policies, Procedures
Developed and Reviewed

5

Departmental Committees

6

Monographs presented at
Pharmacy & Therapeutics Committee

15

Institutional Committees

10

Order Sets Built and Optimized



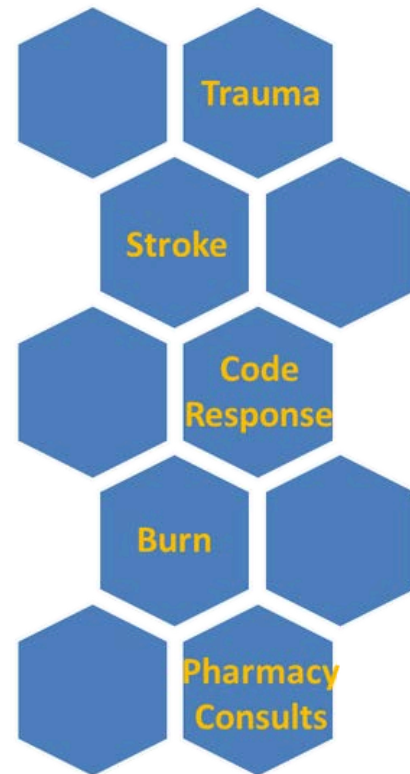
Quality Improvement

Highlights

- Bolus from Pump
- Pediatric Pulmonary Hypertension
- Palliative Care
- Opioid Stewardship
- Comfort Commitment
- Oncology Direct Admits

Emergency Medicine (EM)

The Emergency Medicine Pharmacy team is comprised of highly committed, residency trained pharmacists providing care to both pediatric and adult patients. They enjoy collaborating with medical and nursing staff and colleagues to optimize medication use among a high-risk, vulnerable patient population. Many of our staff members have dual appointments including UCSF School of Pharmacy and UC Davis School of Medicine and actively seek out opportunities to give back to the profession.



282

Antibiotic adjustments via the Culture Callback Program

528

State-funded Naloxone kits dispensed

5

Manuscripts reviewed for Annals of EM

139

Discharge prescription adjustments via the Prescription Clarification Program

2

Resident Research Awards

4

UCDH Nursing Excellence Awards

14

EMR order sets/order panels reviewed and adjusted



Infectious Disease (ID)

ID pharmacists provide patients with personalized, optimal medication therapy with respect to pharmacokinetics, pharmacodynamics, spectrum of activity, feasibility, evidence-based medicine, and cost. The ID team also serves as advisors and educators to the health system's pharmacists, physicians, other multidisciplinary healthcare professionals, and learners. They provide focused educational experiences to pharmacy interns, PGY1 & PGY2 pharmacy residents, including PGY2 residents specializing in ID. The team's pharmacists maintain stringent control over the antimicrobial formulary, review new agents, create, and update ID-related institutional guidelines and policies.

100% PGY2 trained Infectious Diseases Pharmacists, all with Board Certification in Infectious Diseases BCIDP



85.4%

OPAT cases requiring ID RPh Intervention (813)

1,560

Patients cared for on ID consult service

>90%

Intervention acceptance rate

<1

Standard antimicrobial ratio (SAAR) national benchmark maintained

1 of 163

IDSA Center of Excellence

>\$5 Million

Antimicrobial stewardship OPAT cost savings through early discharge, hospital days saved (176), central lines avoided (5), and AIM revenue generation (\$4 million)

Cardiology

The Cardiology Pharmacy team is responsible for the daily rounding and pharmacotherapeutic services of seven medical and surgical services caring for patients in critical care and acute care areas. Cardiology pharmacists have been instrumental in optimizing medication therapy for patients with various cardiac conditions. Over the past year the team has played a vital role in improving the cardiovascular well-being of our patients through a range of initiatives and achievement.



Current Services

- Cardiac Surgery
- Thoracic Surgery
- Pulmonary & Critical Care Consult
- Acute Care Cardiology - Gold
- Acute Care Cardiology - Platinum
- Advanced Heart Failure & Left Ventricular Assist Device
- Vascular Surgery
- Pulmonary Hypertension
- AC Stewardship

Expanded Services & Process Improvements

- Left Ventricular Assist Device Clinic
- Pulmonary Hypertension Service support
- LVAD & Heart Transplant Selection Committee
- Expanded Clinical Services to Evening Coverage
- Sotalol Initiation Program
- Department Anticoagulation Education Module
- ECLS Heparin Order Panel

Professional Development

- 5 Health System Committees (Thrombosis, Nutrition, ECLS, VTE Initiative, VAD & Heart Transplant Selection)
- 3 Dept of Pharmacy Committees (CPC, PRAC, PROC)
- 1 UCOP SIG Anticoagulation
- 9 Pharmacotherapy Board Certifications (BCPS, BCCP, CNSC)
- 9 Volunteer Clinical Faculty Positions

210 Discharge Med Recs since start of program
(since July 1, 2024)

Behavioral Health (BH)

Since the initiation of the Behavioral Health Pharmacy team in August 2021, the team has expanded patient care services in both acute and ambulatory care settings. Board certified psychiatric pharmacists collaborate closely with interdisciplinary psychiatry teams to tailor treatment plans and optimize medication regimens, resulting in improved patient outcomes.



Established Hospital Free Trial Program for high cost LAIs



Conducted resident led major research project. One publication in peer reviewed journal



Development of ambulatory care clinic with direct and indirect patient care services 4 days per week



Dr. Santos spear headed neurodivergent flu/COVID vaccine clinic at MIND

Current Clinical Service Areas

- Psychiatry Consult Liaison
- Emergency Psychiatry Services
- Outpatient Adult Psychiatry
- Outpatient Child Psychiatry
- MIND Institute

Professional Committees Involvement

- PROC, PEDC, DEI, Psychiatry CQI, MIND CQI
- Active membership and committee involvement in American Association of Psychiatric Pharmacy
- Active learning experience to students and residents in both acute and ambulatory experiences
- Dr. Van Dyke Preceptor Apple Award
- Ongoing efforts to create a PGY2 psychiatric pharmacy residency program



Left to right: Dr. Mackenzie Pierce, Dr. Troy Santos, Dr. Priscilla Van Dyke

Inpatient Oncology

The Inpatient oncology team consists of 8 clinical pharmacists, including 7 Board-Certified Oncology Pharmacists (BCOPs). Additionally, the team comprises 8 pharmacy technicians and 4 Post-Graduate Year 2 (PGY2) oncology pharmacy residents. These dedicated professionals collaborate closely with other healthcare providers to ensure the optimal use of medications for patients receiving cancer treatment within the hospital, clinics, and infusion service areas.

The oncology team's responsibilities encompass a wide range of critical tasks. They actively participate in the development and maintenance of Computerized Physician Order Entry (CPOE) order sets specific to oncology. Furthermore, they rigorously evaluate new medications for potential inclusion in the hospital's formulary, a crucial aspect of ensuring the availability of cutting-edge treatments. In addition, the team plays a pivotal role in promoting guidelines aimed at promoting cost-effective and evidence-based cancer treatments.

Moreover, the oncology pharmacy team excels in the realm of medication management for cancer patients. Their expertise is instrumental in the safe and effective administration of medications vital to patients' well-being throughout the course of their treatment.



Inpatient Oncology Services

- **Inpatient Services**
 - Stem Cell Transplant (SCT)
 - Gynecologic Oncology
 - Malignant Hematology
 - Hematology Oncology Wards
 - Cyclical Chemotherapy Service (CCS)
 - Hematology and Solid Oncology Consults
 - 1836 inpatient admissions
- **AIM Infusion**
 - 7262 patient encounters
- 2 expanded access CAR-T's approvals
- 15,597 hazardous products prepared
- 204 SCT & cell therapy procedures
 - Including 36 outpatient SCT
- Cost savings initiatives total \$1.8M

Medication History

The medication history team consists of 5 inpatient technicians and 6 Emergency Department technicians. The inpatient technicians focus on any and all patients admitted into the hospital while the ED technicians focus on the geriatric population in the ED. UC Davis has the highest completion rate of UCs for medication histories upon admission, which allows our providers and pharmacists to make informed decisions faster for our patient population.

Emergency Department

Averaged 90% completion rate for geriatric patients in the ED

Inpatient

Completed 24,135 medication histories

Overall

Completed 98% of medication histories for the high-risk population



Infusion Pharmacy

The infusion pharmacy is an integral part of the inter-professional teams providing care to adult and pediatric oncology patients at UCDH consisting of 21 clinical pharmacists and 13 technicians at the Cancer Center and Placer Center for Health. Not only do the clinical pharmacists work collaboratively with other health care providers to optimize drug therapy for patients undergoing cancer treatment in clinics and infusion services area, but the team also develops and maintains Beacon order sets, reviews new medications for formulary consideration, creates guidelines for cost-effective, evidence-based treatment, and facilitates medication management.



Infusion Pharmacy Services

UC Davis Comprehensive Cancer Center

- Adult and Pediatric Infusion services
- Added AIM services
- Added Cancer Center Injection Clinic patients and Therapy Plan cutover
- Patient volume up 10% from FY23
- Vial-to-bag initiatives
- Vial use reduction-dose rounding program (\$1.8M saved)
- Biosimilar utilization cost reduction (\$8.8M saved)
- Charge for waste (\$7.8M charged, ~\$2.3M in revenue)

Placer Center for Health Infusion

- Added Rancho Cordova Clinic
- Expanded hours of operation
- Patient volume up 23% from FY23

Investigational Drug Services (IDS)

The UC Davis Health IDS Pharmacy team provides oversight and distribution of investigational products for all UC Davis Health and UC Davis Comprehensive Cancer Center clinical trials involving the administration of investigational drugs as well as order sets for all UCDCC clinical trials. The team is comprised of 6 highly skilled pharmacy technicians and 8 clinical pharmacists.



130
New
Protocols



119
Closed
Protocols



347
Active
Protocols
per Month



**Study
Turnover
Rate: 34%**



179
Studies
Archived



21 Expanded
Access (EA)
Approvals



206
EA
Dispenses



5324
Investigational
Product (IP)
Dispenses

Accomplishments

- ✓ Resumed renal transplant recipient clinical trials
- ✓ PGY2 IDR program ASHP accreditation
- ✓ CTSC Foundations Course lectures
- ✓ Increased metric tracking
- ✓ Hired IDS Pharm Tech Supervisor
- ✓ Hired IDS Pharmacist Manager
- ✓ CTSC CTO Education: IDS pharmacy principles lecture

Achievements

National Presentation

- HOPA 2024: DEI in Clinical Trials
- RPS: Monitor Visits + SOP Standardization

Publication

- Standardization of IDS KPIs: Am J Health-Syst Pharm. 2024; 81: 608-614.

Interview

- *Pharmacy Practice News*. July 2024.

National Committees

- Alliance Pharmacy Committee
- SWOG Pharmacy Committee
- CTSA Pharmacies and Compounding for Translational Research Workgroup
- CIRB



Nutrition

Nutrition Support Pharmacists provide parenteral nutrition services for admitted adult patients and primary service line coverage for colorectal surgery, bariatric surgery, and gastrointestinal surgery.



6,046
Total TPN Orders

435
PN Pharmacist
consults

106
Discharge PNs
facilitated

4
Board Certified
Pharmacists

UCDH Committee Involvement

- Inpatient Clinical Practice Council
- Nutrition Subcommittee
- Pharmacy and Therapeutics
- Drug Shortages
- Employee Wellness

Professional Involvement

- ASPEN24 Meeting Attendance
- ASPEN Education & Professional Development Committee member
- ASPEN Clinical Practice Committee member
- ASPEN Conference Monitoring and Advisory Panel

Opioid Stewardship

The UCDH Opioid Stewardship Program (OSP) provides critical infrastructure for the hospital with a focus on reducing adverse events related to opioid use both during and post hospitalization. The OSP pharmacist has successfully enhanced strategies for surveillance of inpatient opioid orders, policy reviews and developments, facilitation of patient and provider education, and patient safety event assessments. Additionally, there is active participation on numerous multidisciplinary committees focused on pain management, substance use disorder, and opioid safety. This role will continue to provide efforts focused on creation of quality assurance reports, committee involvement, alignment of the Opioid Stewardship team with a physician champion, and prospective monitoring to ensure the program meets guidelines and recommendations from the variety of organizations focused on opioid safety.



Clinical

- 18 Standing OSP Reports
- 8 Committee Representation
- Chair of 2 P&T subcommittees
- 6 guidelines updated and/or created
- 7 EMR enhancements
- Daily safety net surveillance
- DEI Council Member

Academic

- Publication in AJHP
- ASHP Opioid Stewardship Certificate
- UC Preceptor Development Lecturer
- New Graduate Nurse Residency Instructor on Pain and SUD
- Board certification in Emergency Medicine
- DEI Research & Education Subcommittee Chair

Opioid Care Honor Roll – UC Davis Health Achieves Highest Rating: Sustained Improvement

Hospitals that received ‘Sustained Improvement’ have achieved a status of ‘Superior Performance’ for two consecutive years. UCDH recognized for implementing advanced, innovative opioid stewardship strategies across multiple service lines, consistently achieving the highest level of performance, as well as actively measuring and monitoring performance for the purpose of continued quality improvement.

- Only 29/155 California Hospitals awarded 'Sustained Improvement'
- UCDH was the only hospital in Sacramento and the only UC hospital to receive this designation



Transplant Clinical Services

The Solid Organ Transplant Team comprises of both inpatient & ambulatory care pharmacists that provide comprehensive medication management services for kidney, liver, and heart transplant patients. The team has continued to grow with the launch of the liver transplant program in July 2023 which outperformed previous projections with 37 liver transplants performed in the first year. Additionally, the living donor kidney program has grown 43% since last fiscal year.

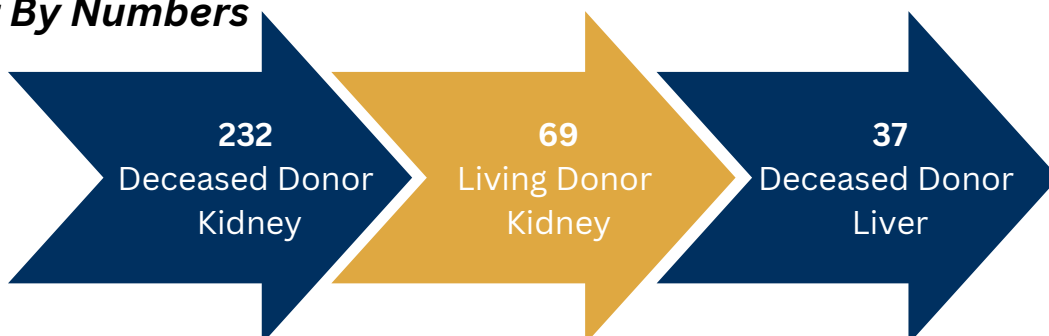


Not Pictured: Dahlia Zuidema, Joy Dray, Lizeth Rivera, Shannan Takhar

Key Highlights

- Started new liver transplant clinic:
 - Post hospital discharge clinic and continuity of care following patients through 1 year post transplant
 - Pre-transplant evaluation clinic prior to listing
- Established pharmacist HCV (+) kidney donor education for consent
- Decreased hospital stay post kidney transplant
 - Day 2 discharge for recipient and day 1 discharge for donor
- Updated of pediatric kidney immunosuppression and post-transplant management guidelines.
- Creation of pediatric kidney transplant discharge order set.
- Ongoing clinical trial: Continuous Glucose Monitoring (CGM) to Improve Glycemic Control in Kidney Transplant Recipients. Grant Dexcom. Ongoing.

Transplant By Numbers



Med Use Safety, Policy & Quality Assurance

The Medication Safety, Medication Policy and Formulary, and Medication Security teams are focused on continuously improving the safe and optimal use of medications at University of California, Davis Health. Our team's goal is to use standards set forth by key regulatory agencies to impact change on a system-level and reduce the risk of harm to our patients.



2023 - 2024 Achievements

1,826

Medication Management surveys completed

\$637,671

Drug waste avoided from temperature excursions

20%

of audit findings corrected on site by Med Security

2,300

Incident Reports reviewed

\$3,270,015

Gene Therapy net revenue

53

Good Catches awarded to Pharmacy

22 Active REMs Programs

~\$1,000,000

formulary-related cost avoidance

67

Pump Library changes completed

Diversification, Automation, Informatics, & Analytics

Our team is dedicated to using data and technology to enhance the medication use system. We remain committed to pioneering solutions that empower patient care and improve operational excellence by enhancing efficiency, accuracy, and data-driven decisions at UCDH.



SYSTEM IMPROVEMENTS

- 12 New Pyxis Devices
- 1 New BD Logistics Facility
- 1 Pyxis Software Upgrade
- 1 CII Safe Install
- 600+ Epic IT Tickets
- 4 New Slicer Dicer Data Models
- 5 Tableau Dashboards

ACHIEVING GOALS

- 4.6 M Total Pyxis Dispenses
- 89% Adult (Eligible) Pyxis Dispenses
- 0.57% Pyxis Stock Out Rate
- 7000+ Inventory Adjustments
- 3000+ Controlled Substance Transactions Reconciled

LEADERSHIP

- National Positions**
 - Ryan Cello, ASHP Director-at-Large Section of Pharmacy Informatics & Technology
- University of California**
 - Informatics & Automation Collaboratives-Lead Site
 - Controlled Substances Collaboratives-Participant
- Publications**
 - RFID in Medication-Use Systems: Considerations and Recommendations to Advance Implementation-ASHP Foundation
- Awards**
 - Ryan Cello, ASHP Fellow Status



Acute Care Operations

The Acute Care Operations Pharmacy team is a fundamental component of the patient care we provide across the health system. We are comprised of Central Pharmacy Operations and Perioperative Services. Our team of ~90 pharmacy technicians and ~35 pharmacists service all inpatient areas, several mixed-use areas (OR & procedural areas), and Pyxis stations in all ambulatory/outpatient clinics across the institution. We are a 24/7 pharmacy dispensing ~6 million doses annually with an annual budget of > ~\$100M.



Pumps Remediation

A **system-wide pump remediation of 3000+ BD Alaris devices** was conducted to ensure an equal number of devices were swapped 1:1.

- >99% completion over the course of 1 month



Operational Optimizations

- **Stockout:** Occurrences of out-of-stock medications has **decreased** from 0.78% → **0.51%**!
- **Turnaround Time:** Significant improvements in our **efficiency** of medication delivery, from time of order:

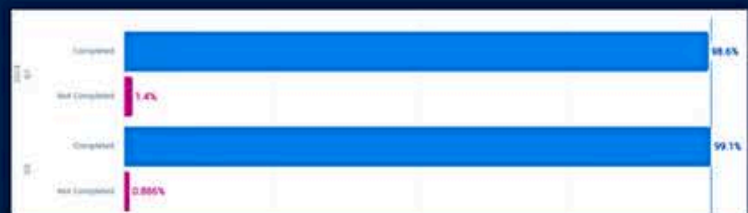
CIVA: 176 min → **65 min**
(63% decrease)

CUDA: 180 min → **97 min**
(54% decrease)

PLX CUDA: 162 min → **65 min**
(40% decrease)

- **Nonsterile Dispense Prep / Dispense Check Dashboard Implementation:**

The percentage of barcode scanning completed per week has **improved** from 98.6% → **99.1%**!



ASHP Grant

UCDH received **\$30,000** from the ASHP Foundation for medication use systems research through the **Enhancing Adoption of Radio-Frequency Identification (RFID) Technology Grant Program**. RFID technology provides the potential to enhance medication safety, allowing our teams to devote more time to patient care.

Our Continued Vision

- Introduction of **state-of-the-art technology** in our IV rooms and nonsterile compounding areas
- Pharmacy remodels & expansions **slated for 2025-2026**
 - USP 795 compliant with renovated space
 - Third carousel to be added for increased storage and efficiency
- Kangaroo Omni Pumps Remediation
- 48X Complex: Surgery Center expansion -- **opening July 1, 2025**
- EPIC enhancements to improve turnaround time, workflow, quality, and patient safety

Perioperative Services (OR) Pharmacy Team

The Perioperative Pharmacy team currently includes 9 pharmacists and 8 technicians. The perioperative space operates as a mixed-use area servicing inpatients and outpatients. The OR team is responsible for covering the Main Hospital OR areas, ambulatory surgery centers, Pre-Op Clinic (PAC Clinic) and various procedural areas which can provide services to more than 250 patients on a normal operating day.

FY24 Major Accomplishments:

- The OR Pharmacy team successfully launched a new CII Safe at the Same Day Surgery Center in collaboration with the Drug Diversion team.
- The OR team started an APPE rotation for UCSF students with three students precepted in the first year.
- Ongoing efforts are underway to prepare for the opening of a new, licensed OR Pharmacy at 48x in July 2025. The new area will include a sterile compounding suite and expand the OR Pharmacy team by 13 team members.



10 Board Certifications across the team in Pharmacotherapy (6), Critical Care (2), Geriatric (1), and Sterile Compounding (1).

Advanced Prep Implementation:

- Enhancing OR efficiency and patient safety by implementing Epic Advanced Prep tools and shifting medication compounding from inside of the OR into pharmacy-run spaces.
- Launched a new order set with Burn Surgery in October 2023 and implemented waste-reduction modifications in January 2024.

Several OR Pharmacy team members were awarded the 2024 Catch of the Year Award by the Medication Error Reduction Committee.

Meet the Team



Pictured: (left to right) Baljinder Atwal, Courtney Manning, Joy Chaudhry



Pictured: (left to right) Joy Chaudhry, Gretchen Marcelino, Jenny Zhao, Susanna Lee, Baljinder Atwal, Bahaar Shaw, Michelle Lee, Sakura Moua

Not Pictured: Wa Hin To, Joshua Jaussi

Education & Training Programs

The Pharmacy Education Enterprise coordinates education programs throughout the institution that support our residents, students, technicians, and pharmacists. Our goal is to elevate pharmacy learner and staff professional development through our world class training programs, Pharmacy Research Oversight Council, and Pharmacy Education and Development Committee.



Residency Program Directors & Coordinators



2024-2025 Resident Class

Resident Programs

- 46** Residents in 13 unique programs
- 201** Pharmacist preceptors
- 9** Newly appointed or promoted UCSF volunteer clinical faculty
- 19** Hours of continuing education provided

Research & Outcomes

- NEW** Service line established to:
- Facilitate education and training
 - Elevate research and scholarship
 - Demonstrate and translate value

Upgraded project template

Improved quality & quantity of proposals

Piloted flipped project model

Expanded project management toolbox

Coordinated resident & staff office hours

Student Programs

- 24** UCSF APPE students
- 1400** Medication histories completed
- 800** Anticoagulation educations completed
- 8** P2 UCSF students involved in UCDH Resident Research

UCDH is the first UC to offer APPE rotations through **UC Synergy Pilot**, welcoming

- 2** UC Irvine Students
- 3** UC San Diego Students

Technician Programs

NEW Redesigned Advanced Technician Lecture Series with Expanded Focus on:

- Administration
- Safety & Quality
- Therapeutics

Ambulatory Care Clinical Services

Our Ambulatory Care Clinical team operates under 24 CPAs with various service lines throughout ambulatory care.



FY24 Accomplishments

138,880
Refill Encounters

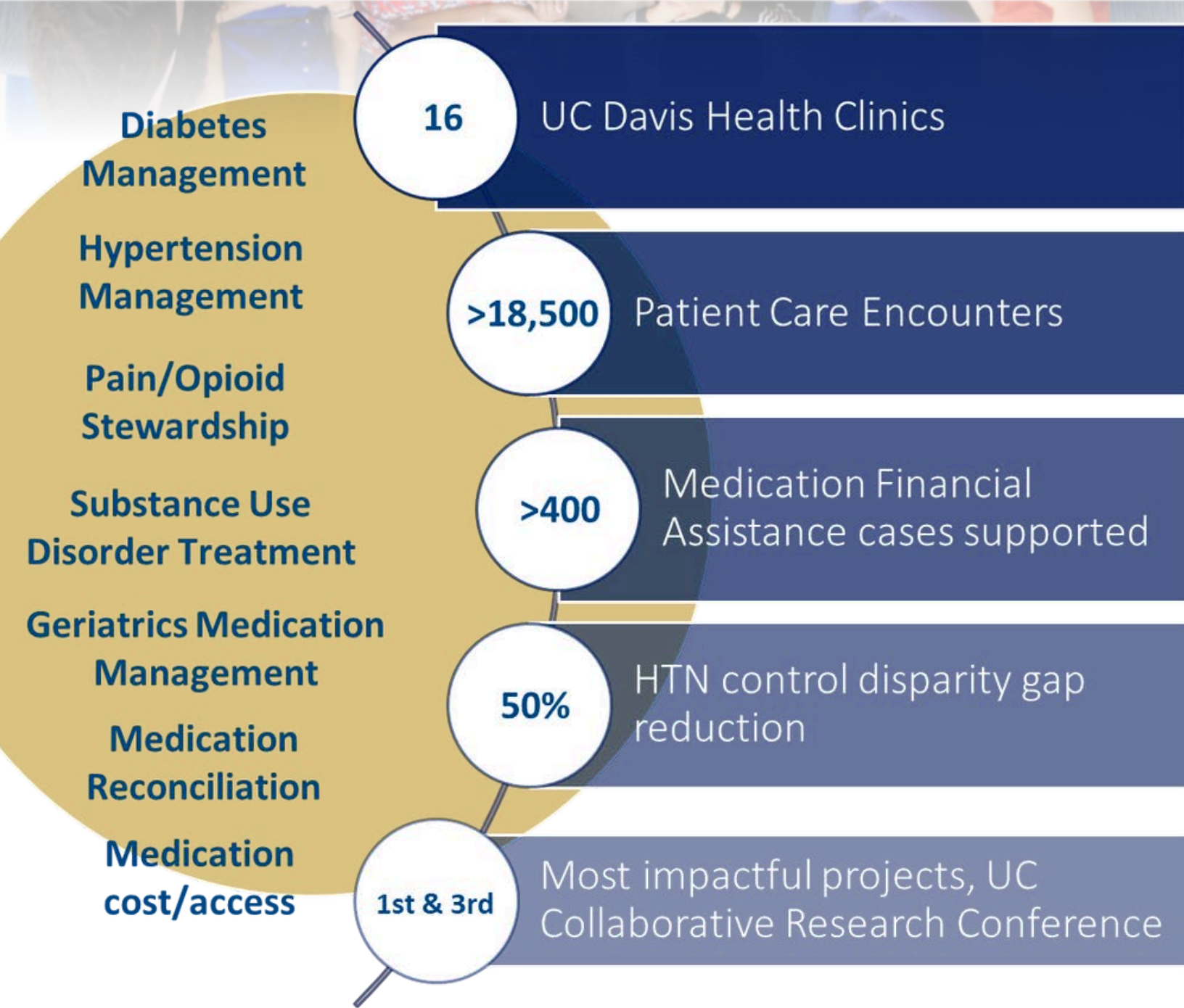
160,644
Total Patient Encounters
(+51% YOY)

84,171
Patient Visits
(+25% YOY)

342,339
In-Basket Messages
(+38% YOY)

110
Total Staff

Primary Care Clinical Services



Pharmacy Refill Optimization



Pharmacy Refill Optimization

- 70,000 patients with 2,400 refill encounters per week
- 127,000 refills/year with an average turnaround time of 33 hours
- Refill support for eleven primary care and specialty clinics by end of FY24
- Started comprehensive medication review virtual patient visits
- Generated \$1 million in new revenue

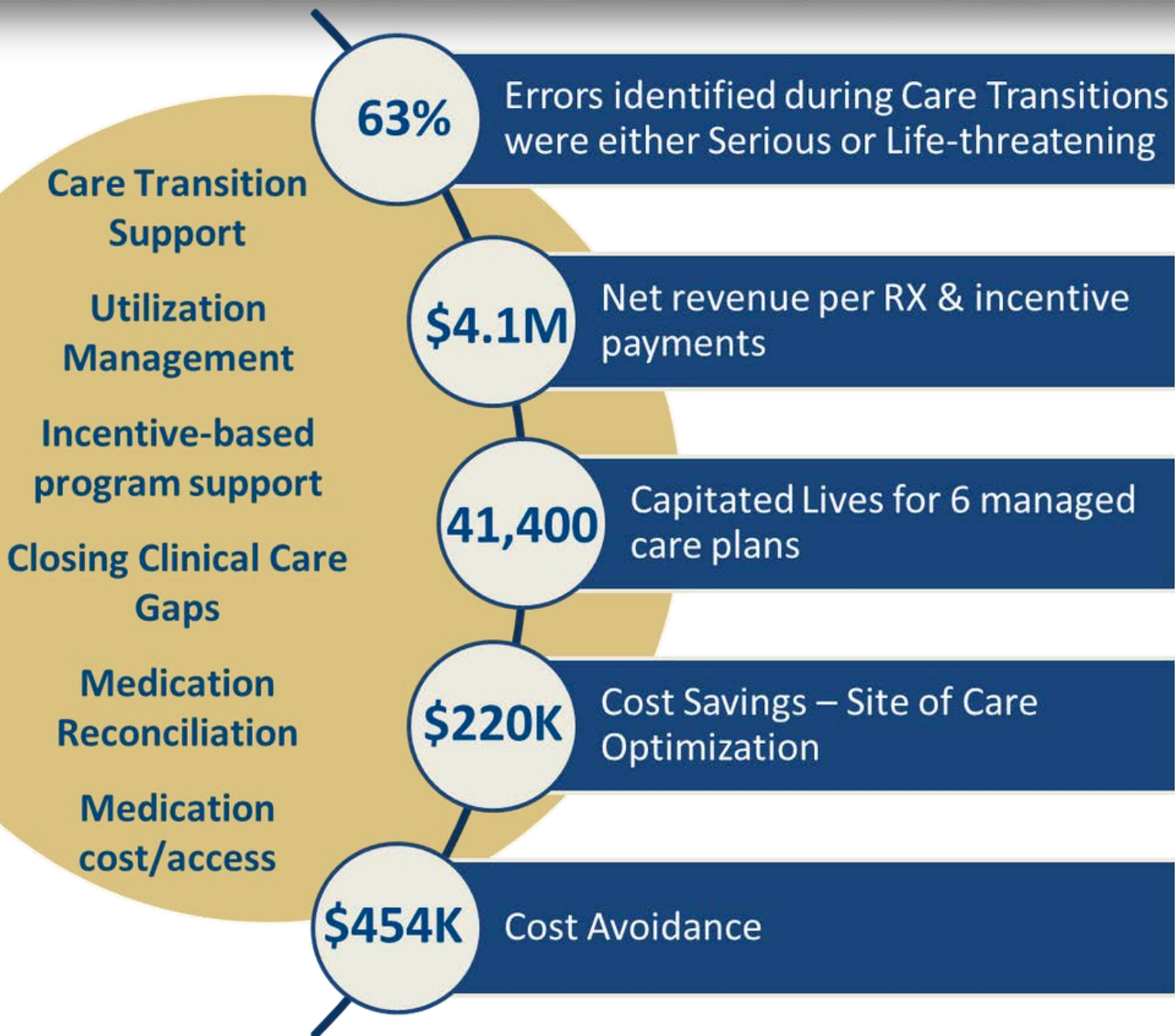
Central Prior Authorization

- More than 26,000 medication prior authorizations (PAs) submitted in FY24
- PA support for 100% of Primary Care Clinics and more than 75% of Specialty Clinics by end of FY24
- PA approval rate greater than 78%
- New PA services launched to two outpatient clinics
- Launched new Appeals Pharmacist support

Central Prior Authorization



Population Health and Accountable Care



Retail Pharmacy Services

Retail pharmacies provide traditional outpatient pharmacy services to patients and employees, including screening prescriptions for appropriateness, insurance billing, dispensing, and providing consultation to patients and staff.

We operate five locations, including two locations that dispense specialty drugs, across the hospital campus in Sacramento and in Davis. We strive to meet the needs of our customers by providing exceptional service and ensuring the safe use of medications to provide the best possible patient outcomes.

- **Pavilion Pharmacy: 173,660 (+1.6%):** Only pharmacy in the main hospital, serving discharge and ED patients 7 days a week
- **ACC Pharmacy: 68,567 (+23%):** Serving primary care and specialty clinics, and Same Day Surgery
- **Cancer Center Pharmacy: 41,353 (+16.4%):** Serving oncology and hospice
- **Health Solutions Pharmacy: 121,041 (+15.7%):** Serving home delivery and patients receiving specialty drugs
- **UC Davis Clinic Pharmacy: 33,232 (+8.93%):** Serving patients of UC Davis Medical Group, staff at main academic campus, and the surrounding community

10.2% increase in total prescription dispensed

36.6% increase in total operating revenue

Implemented Meds to Bed service for hospital discharge patients

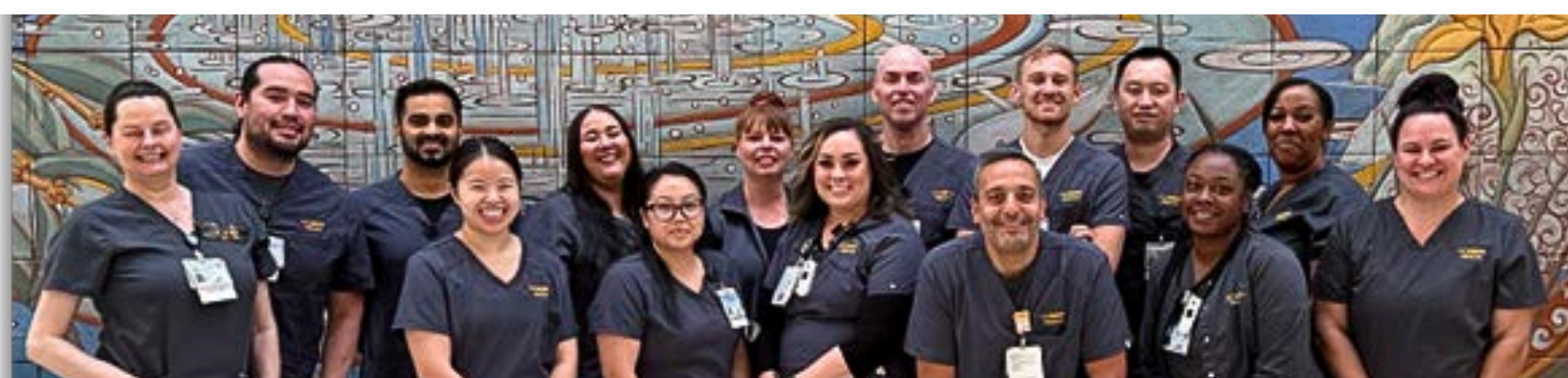
Centralized home delivery and compounds to Health Solutions Pharmacy

Recouped \$1,021,173 in revenue through claims review and billing audits

Reduced turnaround time for discharge prescriptions from 108 to 80 minutes by changing workflow

Demonstrated business continuity during 9-day outage of billing system

Achieved 99.7% accuracy in claims billing based on audits of claims totaling \$11.5 million



340B Program

This federal program, guided by Health Resources and Services Administration (HRSA) and the Office of Pharmacy Affairs (OPA), requires drug manufacturers to provide discounted medication to entities who provide services to a disproportionate share of the underserved population.

The primary goal is to ensure continuous compliance, while maximizing savings and opportunities to ensure that UC Davis Health meets the intent of this important program: to stretch scarce federal resources as far as possible, reaching more eligible patients and providing more comprehensive services.



340B Program Highlight

Manufacturers have restricted 340B pricing at contract pharmacies, impacting overall savings. To mitigate the risk, we implemented an 'Alternative Distribution Model' with the help of Health Solutions Pharmacy to recover lost savings.



Home Infusion Services

Our mission is to provide user friendly home infusion and our vision is to be the preferred home infusion provider for UC Health patients. The UC Davis Health at Home team consists of highly trained billers, nurses, pharmacists, and pharmacy technician navigators.



Fiscal Year Highlights

- Opened **new Ambulatory Infusion Suite**
- Attained a **100% program recommendation rate** from patients via SHP surveying
- Added **5 new insurance contracts** to expand patient access
- Acquired **sterile compounding licensure** for 1800 sq. feet modular cleanroom suite
- **Increased census by 100+** patients this year
- **91% patient referral** conversion success rate

Looking Forward

- Begin servicing acute therapies in 2025 (i.e. anti-infectives, TPN, inotropes, etc.)
- Expand specialty therapy offerings (i.e. hemophilia, chemo, etc.)
- Planning for migration to EPIC Home Infusion Module
- Enhance nursing partnerships throughout rural California counties
- Continue to add therapies to meet the needs of all UC Davis patients and providers
- PICC line placements in the Ambulatory Infusion Suite to aid ED to Home initiative

Pharmacy Finance Services

As a vital component of Pharmacy Business Services, the Pharmacy Finance Services team guides business operations and pharmacy revenue cycle workflows from administration to reimbursement with an emphasis on high dollar, high value medications across the health system. Additional focus areas include navigating system contracts to optimize value and directs financial management of pharmaceutical expenses and revenue. Our accomplishment, a national presentation at the 2024 Vizient Connects Summit highlights our commitment to effectively capturing high value medications, driving business insights for improvements, and enhancing our team's expertise to navigate the evolving landscape.



Epic Willow High Dollar Charges Managed

\$1.1B

(\$849M FY23)



Percentage of Epic Willow Charges Managed

40%

(33% FY23)



Number of Service Contracts

73

(\$400M+)



2024 Vizient Connections Summit, Las Vegas, Nevada,
Presentation Topic: Mastering Medication Charge Capture
September 18, 2024

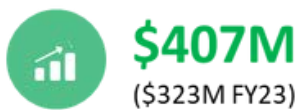


Pharmacy Supply Chain Services

Pharmacy Supply Chain Services, housed in the state-of-the-art Nexus Pharmacy Solutions at Pharmacy Shared Services Center, is revolutionizing how UC Davis Health manages medications. Our Team consolidates pharmacy supply chain operations to optimize costs, enhance patient outcomes, and ensure a seamless, reliable supply of medications. With advanced cold chain management, real-time data analytics, RFID technology, and innovative sourcing strategies, we reduce waste, secure the best prices, and maintain the highest quality standards for pharmaceutical products.

As a vital component of Pharmacy Business Services, our futuristic approach includes expanded inventory control and forward bulk purchasing and distribution capabilities. Our accomplishment in achieving the Vizient 2023 Pharmacy Vision Awards: Mark A. Johnson Pharmacy Analytics highlight our commitment to effectively capturing high value medications, driving business insights to improvements, and enhancing our team's expertise to navigate the evolving landscape.

Pharmaceutical Purchase Value



Distribution & Logistics



Inventory Days of Hand



Nexus Pharmacy Solutions, UC Davis Health Pharmacy Warehouse Wholesaler
Go Live & Stabilization Period: March to September 2024

Specialty Pharmacy Services

UC Davis Health launched its specialty pharmacy program in 2010. Our team is made up of 41 pharmacists, 59 technicians, 3 analysts, 2 office coordinators, and 12 leaders. It provides clinical pharmacy services in the following areas:

- Allergy
- Cardiology
- Dermatology
- Gastroenterology
- Hepatology
- Infectious Diseases
- Neurology
- Oncology
- Pulmonology
- Endocrinology
- Rheumatology
- Solid Organ Transplant



Not pictured: Amber Ordonez, Chris Lauture, Chris Saephan, Jose Ortiz, May Lo, Sumandeep Rai, Derek Miller, Mahealani Ai, Erin Hilario, Priscilla Soto, Simon Vong, Muay Saechao, Denise Montalvo, Vanny Kongmany



Not pictured: Christine Quach, Shoua Yang, Jonah Belen, Marina Morales, Robert Brower

Specialty Pharmacy Services



Key Highlights of FY24:

Transition to Shared Services Center

Successfully closed Cypress Pharmacy and opened **Health Solutions Pharmacy** at the new Shared Services Center, where all staff from the hub and dispensing are now united in one location, fostering a more cohesive and communicative team, improving efficiency and collaboration.

Home Delivery Program Expansion

Expanded our home delivery program, enhancing convenience for patients by providing direct access to medications at home, serving a total of **4,460 patients** and delivering **45,895 prescriptions**.

Specialty Pharmacy Expansion

Expanded our specialty program across various clinics and therapies, working closely with providers to better support a larger patient base and offer more treatment options. This growth **added 2,009 patients** to our specialty program and **increased prescription volume by 23,530**.

Staff Growth

Expanded our workforce by adding **26 new staff** members to meet growing demand, enabling more personalized and comprehensive patient care.

Technology Enhancements

Added the **Parata Automated Dispensing and Conveyance system**, expanding our prescription capacity from 600 to 2,800 prescriptions per day and vastly improving productivity and efficiency.

Implemented the Multi-Step Order Transmittal (**MSOT**), an Epic-specific workflow that supports ambulatory clinics and pharmacy teams in reviewing prescription orders, confirming benefit coverage, clearing restrictions, and selecting a pharmacy for fulfillment. This process ensures a streamlined, accurate, and efficient workflow for prescription management.

New Compounding Rooms

Installed designated compounding rooms, enabling us to produce a wider range of complex compounded products, improving our services for specialized patient needs.

Manufacturer Engagement & Payer Strategy

Added **Director of Specialty Pharmacy Value, Trade Relations and Market Access** to our team. Differentiating us from the competition with stakeholders.

Specialty Clinical Pharmacists

Anticoagulation

- Managed 625 patients per year
- 290 pharmacist encounters/week and ~15,000 encounters yearly
- Time in therapeutic range (TTR) is 70.3%
- Anticoagulation clinic initiates pharmacist DOAC transitions, educations, financial assistance and overall clinic support



Cardiology

- “Impact of Integrated Clinical Pharmacy Services in an Outpatient Cardiac Rehabilitation Program” presented at UC Collab Conference received grant approval from Shields Health Solutions
- Expansion into General Cardiology Clinic
- Shivani Shah developed Outpatient Expected Practices for GDMT titration
- Svetlana Goldman took on role of Residency Coordinator for PGY1 Ambulatory Care Program
- Kat Marquez served as lead for AHA Heart walk
- Claire Yang participated in panel for HF summit 2023

Endocrinology

- Developed pharmacist-driven diabetes management clinic to improve health outcomes
- Expanded services for parathyroid hormone analogs and growth hormones into CPG clinics
- Published a case study on PSNet: Insulin Administration
- Poster presentation at the American Society for Bone and Mineral Research - "Enhancing Medication Adherence Among Patients with Severe Osteoporosis"



Specialty Clinical Pharmacists

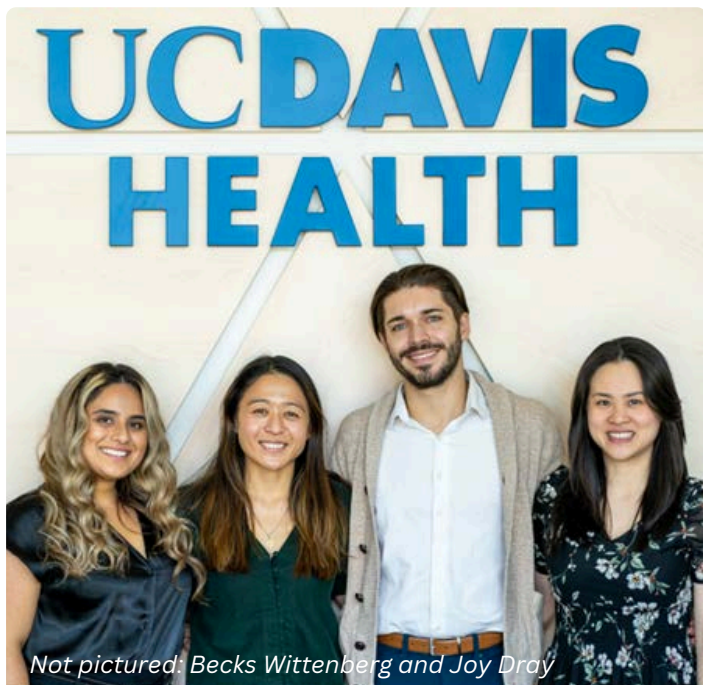
Immunology

- Comprises of allergy, dermatology, gastroenterology, and rheumatology
- Expansion into 6 Clinics with 39% growth in 2024
- Created and reviewed 6 institutional policies, protocols, and guidelines
- 3 UCSF Apple Precepting Awards and 2 UCSF Dean's Apple Teaching Awards
- Presentations: 2 Local and 1 National
- Committee Representation: 7 Institutional and 1 National



Hepatology & Infectious Disease

- Expanded HIV medication access to include Sunlenca (lenacapavir)
- Implemented standardized process for providing expedited partner therapy (EPT) Collaboration with ED providers to create HIV Rapid Start protocol for newly diagnosed patients
- Collaboration with transplant nephrologists and hepatologists to create HCV viremic donor to negative recipient protocol for adult kidney transplants
- Expanded medication access to indicated patients with MASH (metabolic dysfunction-associated steatohepatitis) or PBC (primary biliary cholangitis)



Not pictured: Becks Wittenberg and Joy Dray

Neurology

- Board certified pharmacists who provide clinical specialty care for patients with a diagnosis of Multiple Sclerosis, Parkinson's Disease, Huntington's Disease, Migraine or other Neurological Disorder
- Assisted in launch the Multidisciplinary Parkinson's Disease clinic where they provide patients with comprehensive medication reconciliation, titrating, tapering, and adjusting medication regimens, side effect management, adherence strategies
- Primary preceptors for two major longitudinal PGY2 resident research projects



Specialty Clinical Pharmacists

Pulmonology

- Supporting pediatric and adult cystic fibrosis, interstitial lung disease, and pulmonary hypertension clinics with technician-led support for asthma/COPD medication access
- Collaborated with inpatient pharmacy to create pulmonary hypertension device policies
- Collaborated with technician discharge team to improve access to restricted pulmonary hypertension and cystic fibrosis medications
- Navigated national ambrisentan shortage
- Participated in 2 pilot programs
- 2024 Apples for Preceptors Award



Oncology

- Currently supporting Adult Hematology/Oncology/Gynecology Clinics with technician-led support for anti-cancer medication access
- Saumya Papneja and Christina Marengo promoted to Senior Pharmacist
- Facilitated and precepted 3 national presentations
- Authored or co-authored 8 peer reviewed manuscripts and 2 poster abstracts
- Participated in 3 national committees
- Nominated for 1 preceptor of the year
- Received 1 UC Davis Health - Friends of Nursing Award
- Invited guest on 2 podcasts
- Recognized with 1 UC Davis Point of Pride nomination

Specialty Pharmacy Key Highlights

14
Therapeutic Specific
Outcomes Tracked

21,218
Total Patient
Encounters

5,176
Patient Enrollments
into Specialty Services

**Standardization
Workgroup with
Ongoing Initiatives**

**Implemented
Intervention and
Outcome Tracker**



- | **Committee Appointments**
- | **Presentations**
- | **Publications**
- | **Awards**



Committee Appointments

ACCP Cardiology PRN Communications/ Social Media Committee

Sydney Graboyes, PharmD, MBA, BCCP
Senior clinical Pharmacist,
Anticoagulation/Cardiology

Vizient Professional Development Workforce

Domini Hood, PharmD
Manager, Education Enterprise

ACCP Clinical Affairs Practice Committee

Tiffany Pon, PharmD, BCPS
Clinical Pharmacist, Internal Medicine

Health Professions Advising (undergraduates & graduate students)

Monica Donnelley, PharmD, BCIDP,
BCPS, AAHIVP
Clinical Pharmacist Specialist, ID

ASHP New Practitioners Forum Executive Committee

Alfred Awuah, PharmD, MS, BCPS
Medication Safety Officer

Hematology/Oncology Pharmacist Association External Communication Committee

Ryan Beechinor, PharmD, BCPS, BCOP
Senior Pharmacist, Hematology/Oncology

ASHP Section of Pharmacy Practice Leaders (SPPL), Section Advisory Group

Kofi Andoh, PharmD, MS
Pharmacy Manager,
Home Infusion Services

NHIA Quality and Standards Committee

Kofi Andoh, PharmD, MS
Pharmacy Manager,
Home Infusion Services

BPS Research Committee

Andrea Iannucci, PharmD, BCOP
Associate Chief Pharmacist, Oncology
and IDS

ACCP Meeting Planning Committee

Brent Hall, PharmD, BCPPS
Pharmacist Specialist, Pediatrics

Commission on Cancer Member Organization Committee

Andrea Iannucci, PharmD, BCOP
Associate Chief Pharmacist,
Oncology and IDS

NCCN Anti-Emesis Panel

Andrea Iannucci, PharmD, BCOP
Associate Chief Pharmacist, Oncology
and IDS



Committee Appointments

NCCN Pharmacy Directors Forum

Andrea Iannucci, PharmD, BCOP
Associate Chief Pharmacist, Oncology
and IDS

Vizient Business of the Pharmacy Enterprise Committee

Kofi Andoh, PharmD, MS
Pharmacy Manager, Home Infusion

NICHE (Nurses Improving Care for Healthsystems Elders)

Florence Tan, PharmD, BCPS, BCGP
Clinical Pharmacist, General Medicine

Vizient Pharmacy Revenue Cycle Benchmarking Survey

Josephine S. Lai, PharmD, MBA
Associate CPO, Business Services

Chair of the American College of Clinical Pharmacy, Pedi-PRN

Brent Hall, PharmD, BCPPS
Pharmacist Specialist, Pediatrics

Vizient Quality, Safety, Compliance Committee

Ashley Trask, PharmD
Associate Chief Pharmacy Officer

Vizient Business and Pharmacy Enterprise

Josephine S. Lai, PharmD, MBA
Associate CPO, Business Services

Vizient Research Committee

Aletha Loeb, PharmD
Immunology Pharmacist

SAEM: Professional Development Committee for AEMP

Ruixin Shi, PharmD, BCPS
Clinical Pharmacist, Emergency Medicine

NHIA Sterile Compounding Practice

Shelly Willis, CPhT, CSPT
Pharmacy Technician Supervisor, Home
Infusion

SCCM, Membership Committee

Rachelle Firestone, PharmD, BCCCP,
FCCM
Senior Clinical Pharmacist, Critical Care

BPS Pediatric Specialty Advisory Board

Brent Hall, PharmD, BCPPS
Pharmacist Specialist, Pediatrics



Committee Appointments

Chair of PPA Residency Leadership Sig and Core Competency SIG

Brent Hall, PharmD, BCPPS
Pharmacist Specialist, Pediatrics

NHIA Sterile Compounding Practice Committee

Kofi Andoh, PharmD, MS
Pharmacy Manager, Home Infusion

UC Way HTN Medication Use Subgroup

Simarjit Sandher, PharmD, BCACP
Clinical Pharmacist, Primary Care
Clinical Pharmacy Services

Oncology Pharmacy Network for CA

Ryan Beechinor, PharmD, BCPS, BCOP
Senior Pharmacist,
Hematology/Oncology

Commission on Cancer Quality Improvement Committee

Andrea Iannucci, PharmD, BCOP
Associate Chief Pharmacist,
Oncology and IDS

NCCN Guideline Older Adult Oncology

Ryan Beechinor, PharmD, BCPS, BCOP
Senior Pharmacist, Hematology/Oncology

**UC DAVIS
HEALTH**

PRESENTATIONS

Alfred Awuah, PharmD

- Framing the Future of Pharmacy: Practice Advancement Initiative (PAI) 2030. 2024 Georgia Society of Health-System Pharmacists Spring Meeting Savannah, Georgia

Brent Hall PharmD, BCPPS

- "It's So Hard To Say Goodbye: How to Survive the Early Separation Process" with Dr. Nicola Clayton and Dr. Rebecca Hluhanich, October 2, 2024, ASHP National Preceptors Conference, Virtual
- "Come One, Come All: Development of a Multi-Site Preceptor Development Program" with Dr. Christine Mnatzaganian and Dr. Dexter Wimer, October 3, 2024, ASHP National Preceptors Conference, Virtual
- Moderating a talk at ACCP National Meeting - "Mind Bending Experience: Clinical Applications and Legal Considerations of Neuroactive FED Scheduled Medications" with Dr. Jeremy Daneil, Dr. Lisa Holle and Dr. Ann Philbrick, October 12, 2024, ACCP Meeting, Phoenix, AZ

Sarah Bajorek, PharmD

- Taming Million Dollar Drugs – A Health Care System Emerging Therapies Program, AMCP 2024, New Orleans, LA, April 16, 2024
- Pharmacist discharge medication review prevents errors and potential patient harm (2024 Society of Hospital Medicine Converge Annual Meeting, San Diego, CA) - Poster Presentation

Jennifer Craven, PharmD, BCPS

Taming Million Dollar Drugs – A Health Care System Emerging Therapies Program, AMCP 2024, New Orleans, LA, April 16, 2024

Ryan Beechinor, PharmD, BCPS, BCOP

- Clinical Outcomes with a BCL2 Inhibitor for the treatment of AML, AMCP Science and Innovation Theater, November 2023
- Guiding Pharmacy Residents to Design, Execute, and Publish Meaningful Research, Northern California Oncology Pharmacy Network, February 2024
- Bossaer J, Beechinor RJ.. Development of Generic Lenalidomide January 10, 2024 [Audio podcast episode]. Available at <https://open.spotify.com/episode/7MyXo29ZUSh0XIToSVBYCq>
- Hughes, D, Mordino, J, Beechinor RJ.. Cognitive Load Theory: Learning on Beechinor Street. Precept Responsibly; 2023 [Audio podcast episode]. June 22, 2023 Available at <https://preceptresponsibly.podbean.com/e/cognitive-load-theory-learning-on-beechinor-street/>

Andrea Iannucci, PharmD, BCOP

- Lecture Series Presented at the Clinical Pharmacy Conference (CPC) Vienna, Austria. September 23-24, 2024.
- Biomarker-Driven Therapies: Does One Size Fit All?
- Novel Sites for Chemotherapy Administration
- Key Publications to Support Oncology Recommendations
- Which Chemotherapeutic Agents Have Good Data?
- Hematology: A Primer
- Oncology Cases.
- Are you ready for Bi-Specifics? Clinical Pearls and Implementation Strategies. Panel discussion. Horizon CME APP Oncology Summit. San Francisco, CA 8/17/2024.

Aletha Loeb, PharmD; Ellen Berkley, PharmD; Mariya Kotova, PharmD; Rebecca Hoss, PharmD

- Impact of pharmacist-led education on alcohol use disorder in the primary care setting at a large academic medical center. AAAP. San Diego, CA. December, 2023.

Kassi Bugg, PharmD, BCACP and Stacy Knox, PharmD, BCPS, BCACP, DPLA

- The Pajama Game: Improving Physician Wellness by Pharmacist Prescription Renewal. Vizient Pharmacy Network Meeting, 12/2/23.

Ray Shi, PharmD and Sierra Young, PharmD

- Precepting in the Era of Artificial Intelligence, ASHP National Pharmacy Preceptor Conference (NPPC), 10/3/24

Joy Dray, PharmD, BCACP, AAHIVP

- HIV Updates," 40th Annual UC Davis Infectious Diseases Conference. Sacramento, Ca. February 16, 2024.
- "Evaluating Anemia and UTI incidence with sulfamethoxazole/trimethoprim compared to dapsone in G6PD sufficient kidney transplant patients" ATC Poster Session June 3 2024
- "Isavuconazole Therapeutic Drug Monitoring and Association with Adverse Events" ID Week 2024.
- Coccidioides prophylaxis and safety outcomes in renal transplant patients. Presented at CHSP 2023.

PRESENTATIONS

Jennifer Murphy, PharmD

- Targeted Therapies, Oncology 101, virtual, May 2024 .
- Diving into DEI: Increasing Inclusivity and Fostering Diversity, HOPA Annual Conference, Tampa, FL, April 2024
- Managing the Madness: Standardizing Monitor Visits and SOPs, Research Pharmacy Summit, virtual, Sept 2023

Monica Donnelley, PharmD, BCIDP, BCPS, AAHIVP

- Lecture Series Presented at the Clinical Pharmacy Conference (CPC) Vienna, Austria. September 23-24, 2024
- Penicillin-Allergy Delabeling
- Infective Endocarditis: A Pharmacist's Perspective
- Drug Monitoring in Infectious Diseases
- Patient Cases
- Antifungal Stewardship
- What's New in Antimicrobials

Dahlia Zuidema PharmD BC-ADM CDCES

- Diversity, Equity and Inclusion. Dexcom CGM trial in Kidney transplant recipients on insulin, an interim analysis. Poster presentation at UC Davis internal medicine research forum. October 19th 2023.

Lindsey Mai, PharmD, BCPPS

- Medicare Updates for 2024, National Pharmacy Technician Association, zoom, 07/18/24

Juli Guglielmo, PharmD, BCOP

- Updates in the Treatment of Adult Acute Lymphoblastic Lymphoma. National Comprehensive Cancer Network Pharmacy Updates Live Webinar. December 20, 2023.
- The Ongoing Evolution of Cancer Drug Therapy. Advanced Practice Providers Oncology Summit. San Francisco August 15, 2024.

Kathie Le, PharmD

- Pharmacist discharge medication review prevents errors and potential patient harm (2024 Society of Hospital Medicine Converge Annual Meeting, San Diego, CA) - Poster Presentation

Becky Hluhanich, PharmD

- Pharmacist discharge medication review prevents errors and potential patient harm (2024 Society of Hospital Medicine Converge Annual Meeting, San Diego, CA) - Poster Presentation

Tiffany Pon, PharmD

- Pharmacist discharge medication review prevents errors and potential patient harm (2024 Society of Hospital Medicine Converge Annual Meeting, San Diego, CA) - Poster Presentation
- What to do when layered learning "fails." (2024 Northwestern States Pharmacy Residency Conference, Portland, OR)
- From Struggle to Success: Strategies for Helping Students Thrive in Experiential Learning Environments (AACP EE Sig Webinar)

Shannan Takhar, PharmD

- From Struggle to Success: Strategies for Helping Students Thrive in Experiential Learning Environments (AACP EE Sig Webinar)

Emily Huang, PharmD; Becks Wittenberg, PharmD

- "Isavuconazole Therapeutic Drug Monitoring and Association with Adverse Events" ID Week 2024.

Arte Huntsman, PharmD; CJ Squires, PharmD

- "Evaluating Anemia and UTI incidence with sulfamethoxazole/trimethoprim compared to dapsone in G6PD sufficient kidney transplant patients" ATC Poster Session June 3 2024

Josephine Lai, PharmD, MBA; Chad Hatfield, PharmD, MHA, BCPS; Brandy Thompson, CPhT

- Mastering Medication Charge Capture and Breaking Barriers in Site of Care Denials, 2024 Vizient Connections Summit, Las Vegas, Nevada, September 18, 2024

Cummins SA, Ray L, Nesheim J, Nasrazadani Z. A Framework for Optimizing Diversity, Equity, Inclusion, and Belonging in Pharmacy Residency Recruitment for Underrepresented Minorities. *Am J Health Syst Pharm.* 2024;81(10):390-400.

Beechinor RJ, Abidalhassan MF, Small DF, Lamba R, Loehfelm TW, Foster C, Cho M, Gholami S. A case of heavily pretreated HER2+ colorectal liver meta responsive to hepatic arterial infusional chemotherapy. *Clin Colorectal Cancer.* 2023;S1533-0028(23)00023-3.

Beechinor RJ, Mahmoudjafari Z, Mohyuddin M. Financial Toxicity in Oncology, More Unanswered Questions. *J Clin Oncol.* 2023;41(28):4600-4601.

Beechinor RJ, Mohyuddin M, Mahmoudjafari Z. The story of the development of generic lenalidomide: How one company thwarted the Waxman-Hatch Act to generate billions of dollars in revenue. *J Cancer Policy.* 2023 Sep 28;38:100446

Dotan E, Walter LC, **Beechinor RJ**, Browner IS, Carozza D, Clifton K, Cohen HJ, Dale W, Giri S, Gross CP, Gupta S, Jatoi A, Jayani R, Keating NL, Kessler E, Koll T, Korc-Grodzicki B, Langer M, McDevitt R, McKoy JM, Moon D, Owusu C, Ramchandran K, Rosko A, Russell M, Sam C, Sedhom R, Siddiqui F, Soones T, Stirewalt DL, Tew WP, Varley P, Aggarwal S, Awotiwon A, Kumar R, Schonfeld R. NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Older Adult Oncology V.1.2024.

Sperry, J.D., **Loeb, A.**, Smith, M.J. et al. Retrospective, multicenter analysis of the safety and effectiveness of direct oral anticoagulants for the treatment of venous thromboembolism in obesity. *J Thromb Thrombolysis* 57, 603–612 (2024). <https://doi.org/10.1007/s11239-024-02955-6>

Beechinor, RJ, Angerman, CJ, Steele, AP. Making residency research project patient centered: An example of how retrospective research projects can have a large impact on cancer care. *Pharmacy Practice in Focus: Oncology.* 2024; 6(3): 24-26

Loeb A, Berkeley E, Kotova M, Portas H, Leamon MH, Hoss R. Impact of pharmacist-led education on alcohol use disorder in the primary care setting at a large academic medical center. *Am J Addict* 2024;33:413.

Pan B, Beechinor RJ. Lifileucel: The First Tumor-Derived Autologous T-Cell Immunotherapy Approved for Metastatic Melanoma. *The Oncology Connection.* 2024; Available at: <https://apponcologysummit.org/lifileucel-the-first-tumor-derived-autologous-t-cell-immunotherapy-approved-for-metastatic-melanoma/>

Beechinor RJ, Jonas BA. This differentiation will not stand, man: ivosidenib for MDS. *Blood Advances.* 2024;8 (15): 4207–4208

Macres S, Aldwinckle RJ, Saldahna U, Pritzlaff SG, Jung M, Santos J, **Kotova M**, Bishop R. Reconceptualizing Acute Pain Management in the 21st Century. *Adv Anesth.* 2023 Dec;41(1):87-110. doi: 10.1016/j.aan.2023.06.006. Epub 2023 Aug 21. PMID: 38251624.

Laya Reddy, George R Thompson, Natascha Tuznik, Tina A Zolfaghari, **Joy Vongspanich Dray**, Janneca Ames, Daniel Ho, Scott Crabtree, Jeffrey Fine, Machel D Wilson, Muna Alnimri, Stuart H Cohen, Alan Koff, Safety of Fluconazole in Kidney Transplant Recipients for Prevention of Coccidioidomycosis, *Medical Mycology*, 2024; myae017

Somani, S., Takhar, S., Miller, D., Camarillo, H., Zhu, M., & Tran, K. (2024). Compass Rose™ Implementation in a Large Academic Medical Center. *Exploratory research in clinical and social pharmacy*, 15, 100462. <https://doi.org/10.1016/j.rcsop.2024.10046>

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Thompson RA, Donnelley MA, Trigg K, Fan S, Wilson MD, Cohen SH, Thompson GR 3rd, Desai AN. Utility of microbial cell free DNA next-generation sequencing for diagnosis and management of infectious diseases. *Diagn Microbiol Infect Dis.* 2024;110(1):116334. doi:10.1016/j.diagmicrobio.2024.116334

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Heidari A, Sharma R, Shakir Q, Shah M, **Clement J, Donnelley MA**, Reynolds T, Trigg K, Jolliff J, Kuran R, Johnson R, Thompson GR. Isavuconazole in the Treatment of Chronic Forms of Coccidioidomycosis. *Clin Infect Dis.* 2023;76(12):2196-2199. doi:10.1093/cid/ciad146

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PUBLICATIONS

Gutierrez Y, Takhar S, Dray J. Impact of Clinical Pharmacist Program on post-transplant hyperglycemia hospitalizations. *J Contemporary Pharmacy Practice*. December 2023

Yakubi H, Steele AP, Tsao M. Meperidine compared to morphine for rigors associated with monoclonal antibody-related infusion reactions. *J Oncol Pharm Pract*. 2024 Jun 17:10781552241259986. doi: 10.1177/10781552241259986. Epub ahead of print. PMID: 38884818.

Kawasaki Y, **Steele AP**, Rosenberg A, **Guglielmo J.** Safety outcomes of teclistamab accelerated dose escalation. *J Oncol Pharm Pract*. 2024 Aug 1:10781552241268429. doi: 10.1177/10781552241268429. Epub ahead of print. PMID: 39090994.

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Zheng L, **Pon T, Bajorek S, Le K, Hluhanich R**, Ren Y, Wilson M. Impact of pharmacist-led discharge medication reconciliation on error and patient harm prevention at a large academic medical center. *J Amer Coll Clin Pharm* 2024; DOI: 10.1002/jac5.1980

Tsao M, Hoeg R, Pecoraro J, Kuehner M, Deen B, **Guglielmo J.** Predictors of fluid overload in allogeneic hematopoietic cell transplant patients receiving post-transplant cyclophosphamide. *Journal of Oncology Pharmacy Practice*. 2024;0(0). doi:10.1177/10781552241276418

Mangaoang IA, **Schomer KJ, Firestone RL**, et al. Mind the Gap: Estimated Duration of Inadequate Sedation After Rapid Sequence Induction and Intubation in Critically Ill Patients. *CHEST Critical Care*, 2024, 100089 In Press

Derry KL, **Duby JJ, Firestone RL**, et al. Creation and Execution of an Effective Critical Care Pharmacist Collaborative in an Academic Health System. *J Am Coll ClinPharm*. 2023;1-7

McCann C, Kamiyama N, Burgess D, Usher AE, Fine J, Wilson M, **Iannucci A**, Leiserowitz GS, Malogolowkin M. Documentation of Infertility Risk Discussion in Cancer Patients Receiving Cancer-Directed Therapy: The UC Davis Cancer Center Experience. *J Adolesc Young Adult Oncol*. 2024 Apr;13(2):288-292

Chenshu, RY; **Hall, BA**; Tran, H, et al; "Vancomycin Area Under the Curve to Minimum Inhibitory Concentration Ratio for Treatment Effectiveness in Pediatric and Neonatal Staphylococcal Infections: A Systematic Review." *JPPT*. In press

Mnatzaganian, C, Dennehy, C, **Pon, T**, Brown, M, et al. "Implementation of a university-wide health-system collaborative to provide pharmacy preceptor development across multiple institutions", *AJHP*, in press

Hall, B and Markham, K. "New Pulmonary Vein Stenosis Therapies" *PPA Advocate*, Winter 2025

Hall, B and Steidl, K. "Rubrics Cubed: Evaluating Pharmacy Residency Applications Through Rubrics" *PPA Advocate*, Fall 2024

Awards

UCSF Apples for Preceptor Awards

Anh-Thu Truong, PharmD, BCACP
GI Specialty Pharmacist

Michael Garber, PharmD, AAAHIVP
Immunology and Infectious Diseases Specialty Pharmacist

Monica Donnelley, PharmD, BCIDP, BCPS, AAHIVP
Clinical Pharmacist Specialist, Infectious Diseases

Tiffany Pon, PharmD, BCPS
Clinical Pharmacist, Internal Medicine

Yesenia Gutierrez, PharmD
Rheumatology/Allergy Specialty Pharmacist

Brent Hall, PharmD, BCPPS
Pharmacist Specialist, Pediatrics

Vizient Pharmacy Vision Award: Mark A. Johnson Pharmacy Analytics

Josephine S. Lai, PharmD, MBA
Associate Chief Pharmacy Officer,
Business Services

Chan Truong, PharmD, MS, BCPS
Manager,
Pharmacy Supply Chain Services

Nishon M A Jones, CPhT
Strategic Sourcing Analyst,
Pharmacy Supply Chain Services

Jasmeet Kaur Garcha, PharmD, ACE
Pharmacy Manager, 340B

Nikki (Dominique) Cargill, CPhT
Project Policy Analyst, 340B

Sean Lavigne, CPhT
Pharmacy Data Analyst, UCOP

Derek Raymond Petersen
Clinical Informatics Specialist,
IT Analytics

Andrea Iannucci, PharmD, BCOP
Associate Chief Pharmacist, Oncology and
IDS

Aaron Paul Steele, PharmD, BCOP
Senior Pharmacist, Oncology Formulary &
Med Management

Ryan Cello, PharmD, FASHP
Pharmacy Manager, Automation, Informatics,
Analytics & Diversion

Christopher Ong, PharmD
Analytics & Pharmacy Informatics

Thomas R Ami
Clinical Informatics Specialist,
IT Analytics

Brenda Garcia
Supervisor, Operational Analytics

Awards

Medication Safety Catch of the Year

Reena Patel, PharmD, BCPS, CPPS
Medication Safety and Policy Manager

Paul MacDowell, PharmD, BCPS
Medication Safety Officer

Deepa Ramaswamy, PharmD, BCGP, BCPS
Clinical Pharmacist, Med-Surg Acute Care

Courtney Manning, PharmD, MBA
Pharmacy Manager,
Perioperative Services

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Senior Clinical Pharmacist,
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Baljinder Atwal, PharmD
Clinical Pharmacist,
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Association Fellows

ASHP

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Pharmacy Manager, Automation,
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American College of Critical Care Medicine

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Senior Clinical Pharmacist, Critical Care

Sacramento County Tobacco Control Coalition Recognition

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Clinical Pharmacist, Internal Medicine

Associate Editor, Pharmacy Practice in Focus

Ryan Beechinor, PharmD, BCPS, BCOP
Senior Pharmacist, Hematology/Oncology

Friends of Hospital Medicine

Florence Tan, PharmD, BCPS, BCGP
Clinical Pharmacist, General Medicine

Presidential Citation, Pediatric Pharmacy Association

Brent Hall, PharmD, BCPPS
Pharmacist Specialist, Pediatrics

Friends of Nursing

Shelly Willis, CPhT, CSPT
Pharmacy Technician Supervisor, Home
Infusion

**“If you can dream it,
we can build it”**

- Chad Hatfield