

Intermountain Healthcare

PGY1 Pharmacy Residency Program | **Utah Region**
2023-2024 Recruitment Season



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Letter to Prospective Candidates

Thank you for your interest in the Utah-based Intermountain Healthcare residency programs! We offer a variety of PGY1 and PGY2 training programs, all of which use the ASHP PhORCAS online application process. An overview of our program offerings and instructions on how to apply are provided below. You may also visit our [Pharmacy Residency Program Website](#) for additional details.

Applying to a Hospital-Based PGY1 Pharmacy Program

Intermountain offers a hospital-based PGY1 Pharmacy residency experience at 6 facilities:

- McKay-Dee Hospital, Ogden, UT
- LDS Hospital, Salt Lake City, UT
- Primary Children's Hospital, Salt Lake City, UT (pediatric focus)
- Intermountain Medical Center, Murray, UT
- Utah Valley Hospital, Provo, UT
- St. George Regional Hospital, St. George, UT

All facilities work together as part of a unified health system and follow the same set of internal/external standards. Most of these locations are accredited as one, multi-site PGY1 program (ASHP program code # 87200), except for St. George Regional Hospital which has a separate program code (ASHP program code # 87019). This separate code was required due to the location of St. George Regional Hospital relative to the other practice sites.

Applications for all programs must be submitted within PhORCAS. When applying to the multi-site PGY1 program (which includes McKay-Dee, LDS Hospital, Primary Children's, Intermountain Medical Center, and Utah Valley Hospital) you can apply to multiple facilities and it will only count as 1 selection. Specifically, when applying to the multi-site program you can apply to each of the facilities independently or can customize your application to that facility, if desired. For instance you could apply to just one facility, such as Primary Children's Hospital; you could apply to all 4 adult hospitals (McKay-Dee Hospital, Utah Valley Hospital, LDS Hospital, and Intermountain Medical Center); or you could apply to all 5 hospitals. Any of these options would only count as 1 PhORCAS selection. After the interview process is completed, you will use the full 6-digit match number to indicate your preference of home base facility when submitting your rank list.

The hospital-based PGY1 program at St. George Regional Hospital is accredited separately; therefore, it requires a separate PhORCAS application. Likewise, the PGY1/PGY2 Medication-Use Safety and Policy residency, PGY1 Community-based Pharmacy residency, and PGY1 Managed Care residency also require separate applications.

Applying to another PGY1 or PGY2 Program

Applications to the PGY1 Community-based Pharmacy, PGY1/PGY2 Medication-Use Safety and Policy, or any PGY2 program are submitted as separate applications in PhORCAS. These include the following:

- PGY1 Community-based Pharmacy
- PGY1/PGY2 Med-Use Safety & Policy
- PGY2 Ambulatory Care
- PGY2 Emergency Medicine
- PGY2 Critical Care
- PGY2 Cardiology
- PGY2 Pediatrics
- PGY2 Infectious Diseases
- PGY2 Psychiatric Pharmacy
- PGY2 Solid Organ Transplant

Deadlines

All application materials must be received before **10 PM MST on December 31st**. The PhORCAS portal will close to applicants after that date.

Qualifications

- Candidates must graduate from an ACPE-accredited pharmacy program or have a Foreign Pharmacy Graduate Examination Committee (FPGEC) certificate from the NABP.
 - Note: our programs have sponsored VISAs for residents in the past; refer to our [FAQ Page](#) for more details.
- Candidates must be eligible for Utah licensure and are expected to obtain licensure as a pharmacist in Utah within the first 90 days of the program.

Required Elements for Residency Applications

- PhORCAS standard residency application
- Current curriculum vitae
- Three letters of reference using the ASHP standard form (ideally including one from a work supervisor, if available)
- College of pharmacy transcripts; if no GPA is provided on your transcripts, then follow the instructions below:
 - If graduating from a school that uses a pass / fail or alternative grading system, please submit your class rank to Conor Hanrahan (Conor.Hanrahan@imail.org).
 - This is currently done outside of the PhORCAS system due to FERPA rules.
- Letter of intent
- Supplemental requirements for the PGY1 Pharmacy hospital-based programs and PGY1/PGY2 Medication-Use Safety and Policy residency (upload the following as supplemental documents in PhORCAS):
 - Answers to a short essay question, as described on our [application webpage](#).

Applications that are missing any of these required components will not be considered.

Additional Information

With a deadline of December 31st, it is important to have school transcripts sent as soon as possible. Even if Fall grades are not posted, submit transcripts early in December to allow for processing time in the PhORCAS system. **Applications without transcripts in the system by the December 31st deadline will NOT be reviewed.**

Please note that even with separate match numbers, all hospital-based PGY1 facilities are part of the same system residency program and follow the same standards. Residents will be able to do rotations at any practice site in the Intermountain Healthcare network. Through the match, residents are assigned to a “home base” facility, where initial training, staffing, and most rotations are done. Based on the number of applications, unfortunately, not all potential candidates may be granted an interview to all facilities and programs.

Residents must be eligible for licensure in the State of Utah. Information on obtaining your Utah pharmacist license is available at the website of the State of Utah Division of Occupational and Professional Licensing at <http://www.dopl.utah.gov/licensing/pharmacy.html>.

If you have any questions, please feel free to contact me via phone or e-mail. We will be contacting qualified applicants by mid-January to schedule on-site interviews. Thank you for your interest in the Intermountain Healthcare Residency Programs.

Respectfully,



Conor Hanrahan, PharmD, MS, BCPS, CPHQ
Medication Policy, Outcomes, and Stewardship Director
PGY1 Pharmacy Residency Program Director
Intermountain Healthcare Pharmacy Services
E-mail: conor.hanrahan@imail.org

PGY1 Pharmacy Program Purpose, Vision, & Values

Our Purpose

Postgraduate year one (PGY1) pharmacy residency programs build on Doctor of Pharmacy education and outcomes to contribute to the development of clinical pharmacists responsible for medication-related care of patients with a wide range of conditions. The program also enables learners to sit for board certification and participate in postgraduate year two (PGY2) pharmacy residency training.

First established in 2002, the PGY1 pharmacy residency experience at Intermountain Healthcare (Utah Region) is an organized, directed, accredited training program that enhances learner knowledge, skills, attitudes, and abilities. Intermountain's first-year pharmacy residency program builds general competencies in managing medication-use systems and supports optimal medication therapy outcomes for patients with a broad range of disease states.

Our Visions and Values

- Create the **best learning environment** for clinical pharmacy training. Intermountain Healthcare provides an environment dedicated to training drug therapy experts.
- Teach, develop, and produce well-trained health care professionals.
- The program hires and develops qualified preceptors.
- Treat the residents as licensed pharmacists, staff members within the pharmacy department, and as colleagues.
- Provide the **greatest number of opportunities** throughout the enterprise to facilitate the resident's choice of specialty.
- Intermountain maintains and continues to develop rotations in core and specialty areas of clinical pharmacy practice.
- **Develop well-rounded pharmacy practitioners** that patients and providers demand to have as part of their health care team.
- Intermountain preceptors and residents are a recognized value to the health care team and are essential in maximizing patient outcomes.
- Preceptors and residents consistently contribute to the interdisciplinary teams within their respected areas of pharmacy practice.
- **Compete nationally** in all aspects of a residency program and work together to attract the best applicants.

Please feel free to review the System Residency Manual on our [website](#) learn more.

PGY1 Pharmacy Residency Program Locations

Conor Hanrahan, PharmD, MS, BCPS, CPHQ

System PGY1 Pharmacy Residency Program Director



Intermountain Medical Center

504 beds

5 PGY1 residents

Marie Rapier, PharmD, BCCCP

Site Coordinator

Utah Valley Hospital

395 beds

3 PGY1 residents

Caleb Hopkinson, PharmD, BCPS

Site Coordinator



McKay-Dee Hospital

349 beds

2 PGY1 residents

Bryce Bitton, PharmD, BCPS

Site Coordinator



Primary Children's Hospital

289 beds
2 PGY1 residents

Nate Gorney, PharmD, BCPS, BCOP
Site Coordinator



St. George Regional Hospital

284 beds
1 PGY1 resident

Andrew Rudolph, PharmD, BCPS, BCCCP
Site Coordinator and Program Director

LDS Hospital

220 beds
1 PGY1 resident
1 PGY1/PGY2 Med-Use Policy resident

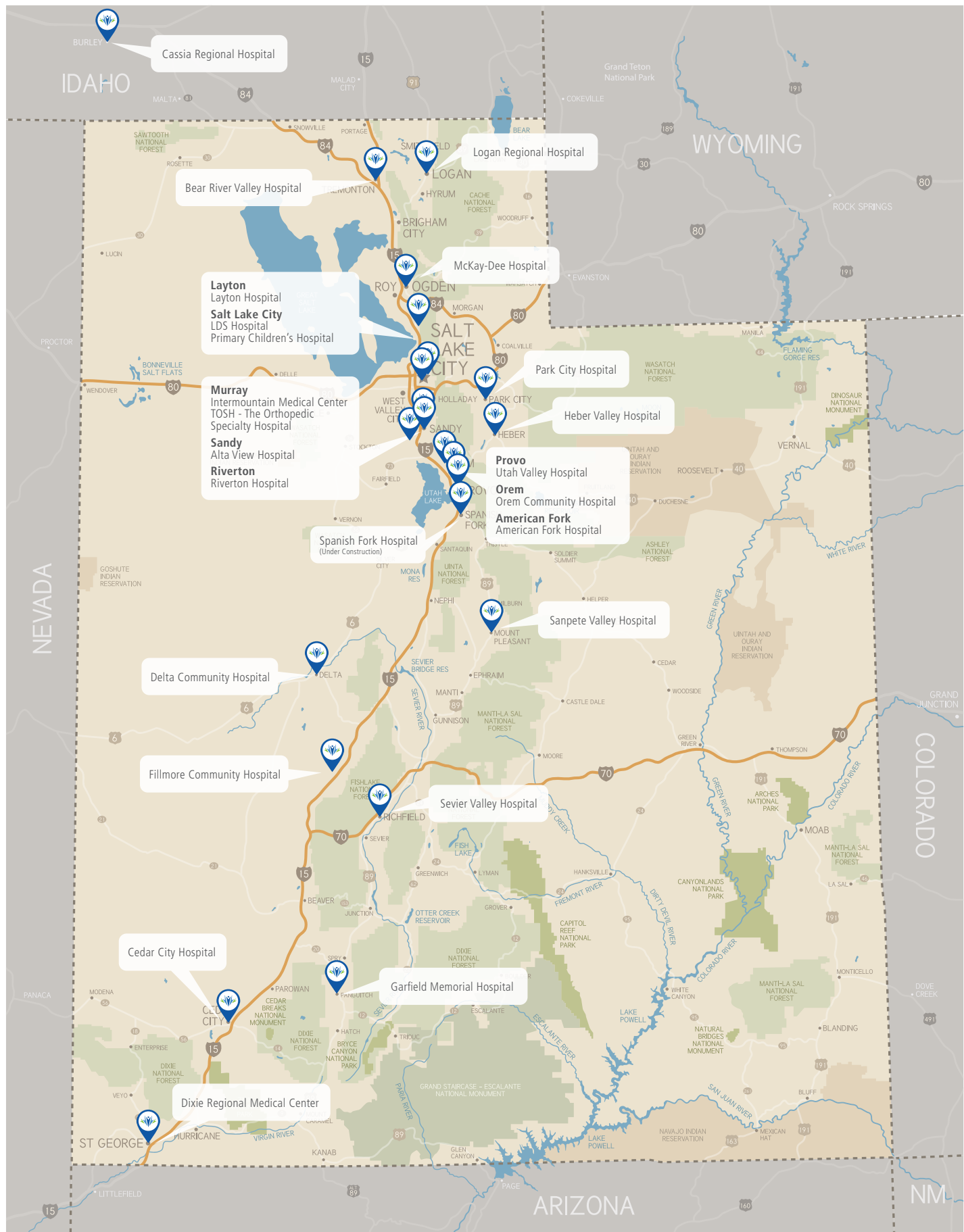
Riki Ashment, PharmD, BCCCP, RN
Site Coordinator



Intermountain Program Codes and Match Numbers

Program	No. Positions	ASHP Code	Facility and Match number
PGY1 Pharmacy Residency* (Various locations)	14	87200	LDS Hospital – 122725 McKay-Dee Hospital – 122726 Primary Children’s Hospital – 122727 Intermountain Medical Center – 122713 Utah Valley Hospital – 122728
		87019	St. George Regional Hospital – 278613
PGY1 Community-based Pharmacy (Enterprise-wide)	2	87011	Intermountain Healthcare – 228615
Intermountain Healthcare PGY1/PGY2 Medication-Use Safety and Policy (PGY1 at LDS Hospital, PGY2 enterprise-wide scope)	1 PGY1 1 PGY2	87017	Intermountain Healthcare – 257817
PGY2 Cardiology (Utah Valley Hospital and Intermountain Medical Center)	1	87012	Utah Valley Hospital – 713267 Intermountain Medical Center – PENDING
PGY2 Ambulatory Care (Enterprise-wide)	2	87009	Intermountain Healthcare – 709865
PGY2 Critical Care (Intermountain Medical Center)	1	87005	Intermountain Medical Center – 662652
PGY2 Emergency Medicine (Intermountain Medical Center)	1	87007	Intermountain Medical Center – 702269
PGY2 Pediatrics (Primary Children’s Hospital)	1	87014	Primary Children’s Hospital – 725261
PGY2 Infectious Diseases (Enterprise-wide)	1	87020	Intermountain Healthcare – 621755
PGY2 Solid Organ Transplant (Intermountain Medical Center)	1	87408	Intermountain Medical Center - PENDING
PGY2 Psychiatric Pharmacy (Primary Children’s Hospital, Enterprise-wide)	1	87409	Primary Children’s Hospital - PENDING

* All Utah-based Intermountain PGY1 Pharmacy residencies follow the same set of standards and processes



PGY1 Hospital-Based Pharmacy Residents

Class of 2022-2023



David Zingale
IMED



Aunalia Rasmussen
IMED



Maggie Haynes
IMED



Melina Bachtar
IMED



Sarah Bittner
IMED



Vincent Anella
Utah Valley Hospital



Leonarda Ljubicic
Utah Valley Hospital



Parker Robinson
Utah Valley Hospital



Mikayla Rosqvist
Primary Children's Hospital



Kristine Jermakian
Primary Children's Hospital



Brandon Gill
McKay-Dee Hospital



Macey Ulibarri
McKay-Dee Hospital



Elise Vickland
LDS Hospital



Maranda Renouard
LDS Hospital | PGY1 MUSP



Will Cannon
St. George Hospital

PGY1 Community Care | Class of 2022-2023



Adelaide Tempest
Community Pharmacy

PGY2 Pharmacy Programs | Class of 2022-2023



Karlee Paloukos
PGY2 Cardiology (IMC)



Regan LeeMaster
PGY2 Cardiology (UVH)



Hayden Gerrard
PGY2 Amb Care (System)



Jerrica Tang
PGY2 Amb Care (System)

PGY2 Pharmacy Programs | Class of 2022-2023



Colin Maehler
PGY2 Behavioral Health



Sameer Alzaidi
PGY2 ID (System)



Jena Dresbach
PGY2 Critical Care



Brittany Harnicher
PGY2 ED (IMED)



Kristen Fernandes
PGY2 Pediatrics (PCH)



Brady Vance
PGY2 MUSP (System)




Rebecca Braun
PGY2 Solid Organ Transplant

Resident Geography



PGY1 Pharmacy (Hospital-based) Requirements

The **minimum requirements** for the PGY1 Pharmacy program (hospital-based) include the following:

- Complete orientation and 10 learning experiences along with required activities and assignments ([click here](#) for a complete list of PGY1 Pharmacy learning experiences). Learning experiences may be off-site (away) from your home-base facility if you choose. Required learning experiences include the following:
 - Central Operations/Compounding (1 week)
 - Pharmacy Management (4 weeks)
 - Medicine (4 weeks)
 - Ambulatory Care (4 weeks)
 - Critical Care (4 weeks)
 - Drug Information (4 weeks)*Required to be completed at home-base facility*
- Complete a residency research project:
 - Complete CITI training
 - Complete project design
 - Submit for IRB approval
 - Complete data collection and analysis
 - Present poster ASHP's Midyear Clinical Meeting or similar conference
 - Present results as a platform presentation at a regional or national meeting
 - Write manuscript
- Staff 32 hours per month at home base facility.
- Complete all PharmAcademic evaluations and requirements.
- Attain "achieved" on at least 75% of all objectives (including 100% of the objectives in competency areas surrounding patient care) within each of the 9 listed goals and attain "satisfactory progress" on all other objectives *not* documented as achieved by the end of the residency year.
- Attend and participate in Core Curriculum Conferences, as scheduled.
- Prepare and present an assigned topic intended for a System-wide Pharmacy and Therapeutics committee meeting or subcommittee meeting.
- Obtain PALS and ACLS certification and participate in management of medical emergencies.
- Complete required teaching activities including:
 - Prepare and present a 1-hour seminar at home base facility for pharmacists.
 - Prepare and present a 1-hour, system-wide broadcasted ACPE-accredited presentation for pharmacists and technicians.
 - Develop and deliver one platform presentation and one poster presentation at a regional, state, national, or other approved conference meeting.

- Precept at least 1 student on rotation and demonstrate the ability to effectively assess student performance, including the following:
 - Lead at least 1 topic discussion
 - Lead at least 1 journal club
 - Participate in either a midpoint or final assessment
 - Give meaningful feedback to the student after at least 1 learning activity
- Lead or actively participate in a case-based recitation scenario for students at a college of pharmacy.

Academic Teaching Certificate Program

Some residents may choose to pursue an **optional teaching certificate program** to further advance their knowledge. The purpose of the teaching certificate is to provide pharmacy residents with the training necessary to enhance their teaching skills and succeed as a faculty member at a college of pharmacy.

Requirements of the optional teaching certificate include:

- Developing a personal, written teaching philosophy
- Design and maintain a teaching portfolio
- Observe at least 2 different didactic lectures at their assigned school of pharmacy
- Develop and deliver a lecture at college of pharmacy to students
- Lead/facilitate at least one recitation, simulation lab, or other similar activity at a college of pharmacy
- Attend at least 2 committee or faculty meetings at a college of pharmacy
- Prepare and present a 1-hour seminar at home base facility for pharmacists
- Prepare and present a 1-hour, system-wide broadcasted ACPE-accredited presentation for pharmacists and technicians
- Deliver at least 1 inservice presentation to clinical staff (nursing, pharmacists, etc.) while on a clinical rotation
- Develop and deliver one platform presentation and one poster presentation at a regional, state, national or other approved conference meeting
- Serve as the primary preceptor of a learner on rotation
- Submit at least 1 publication to a peer reviewed journal
- Participate in the following academia/education-focused discussions throughout the year:
 - Precepting and the 4 preceptor roles
 - Preparing presentations
 - Preparing posters and platform presentations
 - Writing objectives and assessment questions
 - Active learning techniques
 - Feedback and evaluations
 - Managing difficult learners
 - Teaching philosophies
 - Career development in academia (tenure process, types of professorships, typical requirements for promotion, etc.)

Note that due to the geographical distance of St. George Regional Hospital, some program requirements may be adapted for the resident.



PGY1 Pharmacy Program Rotations and PharmAcademic™ Learning Experiences

Note: We allow required experiences to be conducted either at the home-base facility or at another location within the health-system

Requirement	Intermountain Medical Center	LDS Hospital	McKay-Dee Hospital	Primary Children's	Utah Valley Hospital	St. George Regional Hospital
Rotation Experiences that Count Towards Required Rotations or Can Be Used Toward Electives (4 Weeks Unless Otherwise Noted)						
<i>Central Operations/Compounding (1 week only)</i>	Sterile Compounding Operations ^a	Sterile Compounding Operations ^a	Sterile Compounding Operations ^a	Sterile Compounding Operations ^a	Sterile Compounding Operations ^a	Sterile Compounding Operations ^a
<i>Pharmacy Management</i>	Hospital Pharmacy Practice Management ^a	Hospital Pharmacy Practice Management ^a	Hospital Pharmacy Practice Management ^a	Hospital Pharmacy Practice Management ^a	Hospital Pharmacy Practice Management ^a	Hospital Pharmacy Practice Management ^a
<i>Drug Information</i>	CO - Medication-Use Policy/Drug Information PGY1 ^b	CO - Medication-Use Policy/Drug Information PGY1 ^b	CO - Medication-Use Policy/Drug Information PGY1 ^b	CO - Medication-Use Policy/Drug Information PGY1 ^b	CO - Medication-Use Policy/Drug Information PGY1 ^b	CO - Medication-Use Policy/Drug Information PGY1 ^b
<i>Medicine</i>	IMC - Adult Internal Medicine PGY1	LDSH - General Medicine PGY1	MKD - Intermediate Care Unit (IMC) PGY1	PCH - Pediatrics General Medicine PGY1	UV - Internal Medicine	Internal Medicine
<i>Ambulatory Care</i>	<ul style="list-style-type: none"> IMC - Clinical Pharmacist Anticoagulation Service (CPAS) PGY1 PGY1 Heart Failure & Transplant Clinic - ambulatory care ^c 	<ul style="list-style-type: none"> LDSH - Ambulatory Care: BMT LDSH - Ambulatory Care: BMT - "LONGITUDINAL" 	<ul style="list-style-type: none"> MKD - Ambulatory Care PGY1 Layton Family Medicine Ambulatory Care Elective ^c 	<ul style="list-style-type: none"> PCH - Ambulatory Care Solid Organ Transplant PGY1 PCH - Ambulatory Care-Cystic Fibrosis Clinic PGY1 PCH - Hematology Oncology Clinic PGY1 	<ul style="list-style-type: none"> Personalized Primary Care (Ambulatory Care) PGY1 ^c 	Ambulatory Care Anticoagulation Clinic
<i>Critical Care</i>	IMC - Cardiac ICU PGY1 IMC - Neuroscience ICU PGY1 IMC - Respiratory ICU PGY1 IMC - Shock Trauma ICU (Medicine) PGY1 IMC - Shock Trauma ICU (Trauma) PGY1 IMC - Thoracic Intensive Care Unit (TICU) IMC - Newborn ICU PGY1	LDSH – Medical-Surgical ICU (MSICU)	MKD - Critical Care PGY1	PCH - Pediatric ICU PGY1	UV - Cardiac Intensive Care UV - Neuro-Shock Trauma ICU PGY1	Critical Care
Longitudinal Required Experiences						
<i>Presentations</i>	Formal Presentation (PGY1) ^{a, d}	Formal Presentation (PGY1) ^{a, d}	Formal Presentation (PGY1) ^{a, d}	Formal Presentation (PGY1) ^{a, d}	Formal Presentation (PGY1) ^{a, d}	Formal Presentation (PGY1) ^{a, d}
<i>Precepting</i>	Learner Precepting (PGY1) ^a	Learner Precepting (PGY1) ^a	Learner Precepting (PGY1) ^a	Learner Precepting (PGY1) ^a	Learner Precepting (PGY1) ^a	Learner Precepting (PGY1) ^a
<i>Staffing</i>	IMC - Staffing (Longitudinal) PGY1	LDSH - Staffing (longitudinal) PGY1	MKD - Staffing (Longitudinal) PGY1	PCH - Staffing (Longitudinal) PGY1	UV - Staffing (Longitudinal) PGY1	Staffing - Longitudinal
<i>Research</i>	Research or Quality Improvement Project (PGY1) ^d	Research or Quality Improvement Project (PGY1) ^d	Research or Quality Improvement Project (PGY1) ^d	Research or Quality Improvement Project (PGY1) ^d	Research or Quality Improvement Project (PGY1) ^d	Research or Quality Improvement Project (PGY1) ^d
Misc. Required Learning Experiences						
<i>System Orientation</i>	CO - Residency Program Orientation PGY1 ^d	CO - Residency Program Orientation PGY1 ^d	CO - Residency Program Orientation PGY1 ^d	CO - Residency Program Orientation PGY1 ^d	CO - Residency Program Orientation PGY1 ^d	CO - Residency Program Orientation PGY1 ^d
<i>Facility Orientation</i>	Facility Orientation PGY1 ^a	Facility Orientation PGY1 ^a	Facility Orientation PGY1 ^a	Facility Orientation PGY1 ^a	Facility Orientation PGY1 ^a	Facility Orientation PGY1 ^a

^a Standardized learning experience that is delivered separately at each hospital location

^b Standardized learning experience with the Central Office Drug Information Service

^c Technically rolls-up under our system ambulatory care team, but it is located on the hospital campus

^d Standardized learning experience across all programs that is delivered concurrently



Note: We allow elective experiences to be conducted either at the home-base facility or at another location within the health-system

Component	Intermountain Medical Center	LDS Hospital	McKay-Dee Hospital	Primary Children's	Utah Valley Hospital	St. George Regional Hospital
Rotation Experiences That Can Only Count Towards Electives (4 Weeks Unless Otherwise Noted)						
<i>Behavioral Health</i>		LDSH - Psychiatry	MKD - Behavioral Health PGY1	PCH - Child and Adolescent Psychiatry PGY1	UV - Psychiatry/Neuro-Trauma Rehabilitation PGY1	
<i>Cardiology</i>	– IMC - Acute Cardiology PGY1 – IMC - Heart Failure/Transplant/Mechanical Circulatory Support		MKD - Cardiology PGY1		UV - Cardiac Progressive Care Unit PGY1	Cardiology
<i>Emergency Medicine</i>	IMC - Emergency Medicine PGY1	LDSH - Emergency Medicine	MKD - Emergency Medicine PGY1	PCH - Emergency Medicine PGY1	UV - Emergency Medicine PGY1	Emergency Medicine
<i>Infectious Diseases</i>	IMC - Infectious Diseases/Antimicrobial Stewardship/Telehealth ID PGY1	LDSH - Infectious Diseases/Stewardship	MKD - Infectious Disease PGY1	PCH - Infectious Disease PGY1	UV - Infectious Disease/Antimicrobial Stewardship PGY1	Infectious Disease
<i>Informatics</i>	CO - Pharmacy Informatics PGY1 ^e	CO - Pharmacy Informatics PGY1 ^e	CO - Pharmacy Informatics PGY1 ^e	CO - Pharmacy Informatics PGY1 ^e	CO - Pharmacy Informatics PGY1 ^e	CO - Pharmacy Informatics PGY1 ^e
<i>Neurology</i>		–				Neurology
<i>Oncology</i>	IMC - Oncology Clinic	– LDSH - Inpatient Cellular Therapy and Bone Marrow Transplant – LDSH - Inpatient Hematological Malignancies	MKD - Oncology PGY1	PCH - Cancer Transplant Unit PGY1	UV - Outpatient Infusion Services	Oncology
<i>Pediatric/NICU</i>			MKD - Neonatal ICU PGY1	PCH - Newborn ICU PGY1	– UV - Pediatric General Medicine PGY1 – UV - Neonatal ICU PGY1 – UV - Mother Baby	
<i>Surgery/OR</i>			MKD - Surgical Services PGY1			OR/Surgery
<i>Teaching-focused electives</i>	– Academic Teaching Certificate (PGY1; Optional) ^a – IMC - Advanced Internal Medicine and Precepting – IMC - Precepting and Adult Neurology Medicine	Academic Teaching Certificate (PGY1; Optional) ^a	Academic Teaching Certificate (PGY1; Optional) ^a	Academic Teaching Certificate (PGY1; Optional) ^a	Academic Teaching Certificate (PGY1; Optional) ^a	Academic Teaching Certificate (PGY1; Optional) ^a
<i>Transplant</i>	IMC - Abdominal Solid Organ Transplant			PCH - Acute Solid Organ Transplant PGY1		
<i>Other</i>				– PCH - Medication Safety PGY1 – PCH - Investigational Drug Service PGY1 – PCH - Nutrition Support PGY1		Evening Medicine

^a Standardized learning experience that is delivered separately at each hospital location

^e Standardized learning experience across all programs that is delivered by the Centralized Informatics Service

Other non-hospital rotation offerings may include, but are not limited to, the following:

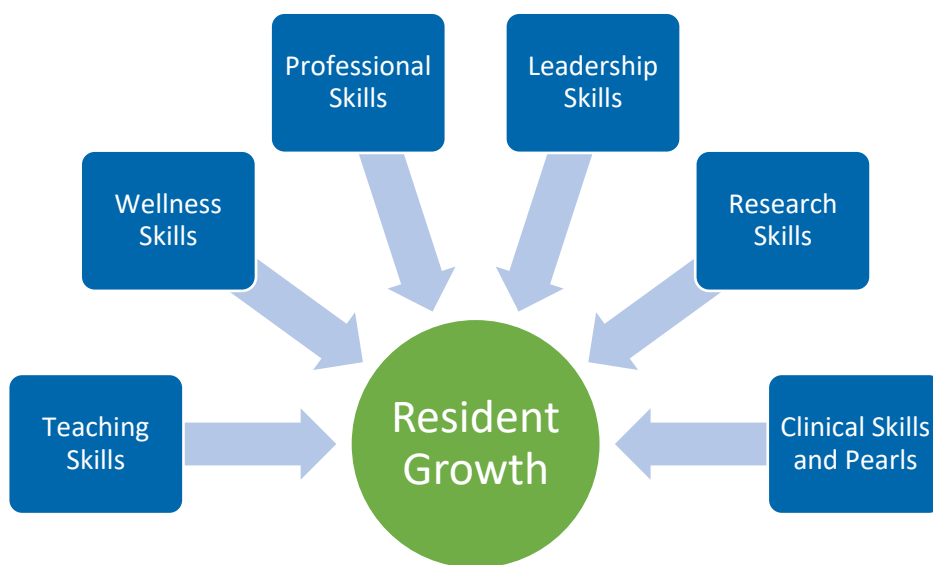
- Homecare & Hospice
- Specialty Pharmacy
- Managed Care/Health Plans
- Internal Process Control (Regulatory Compliance)
- Home Delivery/Mail Order Pharmacy
- Advanced Clinical Pharmacy Informatics
- Teaching and Scholarship
- Pharmacogenomics

Core Curriculum Education Series

Purpose

The purpose of the Core Curriculum Series is to support resident growth and development as a pharmacy practitioner, and supplement the training received during rotations. The curriculum is also designed to promote resident collaboration and wellness throughout the training year. Topics are divided into 6 key domains, as outlined in Figure 1. While some of these domains will be grouped together during consecutive meetings, others may be taught longitudinally throughout the year. Additional details on each domain are outlined below.

Figure 1. Core Curriculum Training Domains



Teaching Skills: This domain is designed to help residents become a successful pharmacy preceptor and educator. Through this module residents will learn the 4 precepting roles, how to prepare presentations, strategies for dealing with difficult learners, techniques for active learning, and much more. Residents who choose to participate in the optional teaching certificate program will be required to take more advanced topics in this domain outside of the Core Curriculum Series.

Wellness Skills: The activities in this domain are intended to support the emotional wellbeing of residents and equip learners with the life skills needed to function in today's stressful health care environment. This module will be taught longitudinally throughout the Core Curriculum Series and will include topics such as time management, mindfulness, developing resilience, conflict management, and embracing uncertainty. In addition, residents will schedule and attend a face-to-face, private wellness appointment with an Employee Assistance Program (EAP) therapist in October or November. This appointment will be a supportive check-in and residents should come prepared to

discuss any challenges they are facing, their stress level, etc. Additional appointments should be scheduled at the resident's discretion.

Professional Skills: These activities are designed to enhance the resident's professional growth in a variety of areas such as medical writing, medication safety, quality improvement, interview skills, etc. The topics taught in this domain form the foundation for a highly functioning professional.

Leadership Skills: This domain is intended to advance the resident's understanding of leadership in today's pharmacy practice model. As part of this module, residents will also learn about the importance of emotional intelligence and will participate in the StrengthsFinder® 2.0 self-assessment.

Research Skills: The activities in this domain are designed to support residents in achieving their research goals under the new flipped research model at Intermountain Healthcare. Residents will learn how to use Microsoft® Excel®, analyze data using descriptive and analytical approaches, understand the Institutional Review Board (IRB), and work directly with data analysts during open research labs.

Clinical Skills and Pearls: While most clinical learning occurs during patient care rotations, there are some topics that residents may not be exposed to during their training year. As such, this learning domain will highlight unique topics in pharmacy to ensure adequate resident exposure. Examples of clinical pearl topics discussed include pharmacogenomics, parenteral/enteral nutrition, and managing continuous glucose monitoring devices.

Meeting Cadence and Schedule

The 2022-2023 Core Curriculum Series will occur once per week from 4-5 PM MST. Most meetings will be hosted virtually; however, in-person sessions will be held at least once per quarter.

Expectations and Attendance

Attendance at the Core Curriculum Series is mandatory for PGY1 Pharmacy, PGY1 Community Pharmacy, and PGY1 Medication Safety/Policy residents. Attendance will be recorded at each session and any absences must be authorized by the residency program director and site coordinator (if applicable). Attendance for PGY2 residents is at the discretion of the PGY2 residency program director. Residents are expected to actively participate in discussions and to be prepared by reading background/supplemental materials, as assigned.

Standing Agenda Items

Each Core Curriculum Conference meeting will begin with a connect to mission or wellness moment, with time for group sharing and discussion. Each session will close with a group wrap-up and feedback moment. The topics for the next Core Curriculum meeting will also be reviewed.

Example Fall 2022 Resident Core Curriculum Schedule

Date	Topic	Presenter(s)	Location
8/9/22	Research Skills (1 hour) – Intro to literature searching evaluation	Whitney Mortensen	Virtual
8/17/22	Research Skills (1 hour) – Study design and methods – Descriptive statistics – Inferential statistics – focus on basics of choosing a test	Whitney Mortensen	Virtual
8/18/22	Research Skills (1 hour) – Introduction to quality improvement methodology	Conor Hanrahan	Virtual
8/23/22	Professional Skills (30 min) – Medication safety basics Research Skills (30 min) – IRB basics	Michael O'Connor Elizabeth Sebranek-Evans and Sarah Kator	Virtual
8/31/22	Professional Skills (1 hour) – Time management	Amanda Grady (guest)	Virtual
9/7/22	Teaching Skills (1.75 hours) – Preparing presentations – Active learning techniques – Writing objectives and assessment questions	Conor Hanrahan Traci Christensen Elizabeth Sebranek-Evans	In-person at Supply Chain Center
9/15/22	Research Skills (1 hour) – Effective data collection	Rachel F. and Stephanie S.	Virtual
9/21/22	Research Skills (1 hour) – Introduction to preparing posters	Christine Formea	Virtual
9/22/22	Professional Skills (1 hour) – CV, cover letters, letters of recommendations	Elizabeth Sebranek Evans and Marie Rapier	Virtual
9/29/22	Academic Teaching Certificate 1 (for those enrolled) – Teaching philosophies – Teaching portfolios	Tim Drake/Scott Shipley	Virtual
10/5/22	Professional Skills (1 hour) – Interview techniques and prep (<i>recorded; watch on your own</i>) – Residents submit an editable Word version of their CVs to Conor.Hanahan@gmail.org	Conor Hanrahan	Recorded
10/11/22	Professional Skills 2 (2.5 hours) – Mock interviews	Various volunteers	In-person; location TBD
10/26/22	Teaching Skills (1 hour) – Handling challenging learner scenarios	Simon Pence	Virtual
10/27/22	Teaching Skills (1 hour) – Precepting and the 4 preceptor roles	Scott Shipley	Virtual
11/1/22	Wellness Skills (1 hour) – Managing Life's Stress	EAP	Virtual
11/9/22	Research Skills (1 hour) – Microsoft Excel tutorial	Conor Hanrahan	Virtual
11/18/22 Back-up 11/11 or 11/16	ASHP Midyear prep; Team building and etiquette dinner	Conor Hanrahan	In-person at Park City Hospital
12/4 – 12/8	ASHP Midyear Meeting		Las Vegas, NV

PGY1 Residency Continuous Improvement

Recent examples of continuous improvement changes to the PGY1 training program:

- Rescheduled Core Curriculum to conducted in shorter sessions once per week instead of longer sessions every-other-week.*
- Updated Core Curriculum topics based on resident feedback, including sessions on financial health, manuscript writing, and expanded clinical topics.*
- Developed more robust IRB support resources to make the process easier for residents.
- Re-aligned project weeks throughout the year to better coincide with major project deadlines.*
- Revised orientation materials and sessions to better meet resident needs.*
- Simplified application requirements for future classes.
- Revised our internal residency applicant scoring rubric to promote a more diverse and inclusive workforce.
- Other enhancements were made to the System Residency Manual and back-end program operations based on our recent ASHP re-accreditation.

Historical examples of continuous program improvement:

- Re-incorporated more in-person team building and wellness activities to better support residents throughout the COVID-19 pandemic.*
- Updated resident licensure and dismissal requirements to account for the enhanced use of Utah temporary pharmacist licenses; doing so supports residents by giving them additional opportunities to pass the MPJE.
- Moved back to the traditional research model after trying the flipped model for two years. Additionally, a system-wide team has been formed to review and vet project concepts before they are offered to residents.
- Added additional rigor to the academic teaching certificate program*
 - Expanded requirements for involvement at local colleges of pharmacy
 - Implemented a new attestation form to ensure understanding of expectations
 - Enhanced faculty mentorship with residents
 - Revised supplemental academia/education-focused discussions throughout the year
- Added 4 dedicated project weeks throughout the year to better support longitudinal resident work and activities*
- Clarified that pediatric residents can present a poster at the Pediatric Pharmacy Association (PPA) instead of the regional Mountain States Conference*
- Added additional technology and remote work education to new resident orientation*
- Provided additional resident training tools to support electronic health record education
- Replaced some Core Curriculum lectures with active-learning therapeutic cases*
- Created oversight committees to better support research and teaching certificate activities

- Revised the teaching certificate program to make it optional for residents and focus more on those interested in academia
- Implemented a flipped research model to address prior delays in research publication and IRB approval; residents are now able to present final result at ASHP Midyear and develop a second research project during the latter half of the year
- Allowed for one flexible project day per rotation*
- Incorporated resident wellness and emotional resilience support into the program, including:
 - Increased Employee Assistance Program (EAP) exposure
 - Clear communication of resources and increased accessibility (tele-EAP visits)
 - Wellness support meetings
 - One scheduled EAP wellness appointment in Fall
 - Topic presentations at Core Curriculum
 - Social support and team building
 - Designate lead resident over social activities
 - Spring and Fall resident retreats/activities
 - Residency Advisory Committee (RAC) wellness subgroup
 - Wellness moments during group meetings
 - Destigmatize and share experiences
 - Preceptor development
- Provide introductory electronic health record training at orientation*
- Take residency class pictures in the morning*
- Created a central Teams repository to house residency class documents and resources
- Incorporated rating scale definitions directly in PharmAcademic
- Optimized seminar and continuing education program schedule, as well as resident deadlines
- Allow some required rotations to be taken off-site from home-base facility; doing so greatly increases resident flexibility in selecting rotations
- Standardize method for recording and submitting CMS hours and precepting time
- Provide handouts prior to Core Curriculum sessions*
- Provide list of discount hotels with interview invites*
- Include research 101 talk during orientation*
- Provide training on giving feedback/self-reflection during orientation*
- Reorganized Core Curriculum into modules by topic*
- Removed duplicate statistics review- Drug Info and Core Curriculum*
- Extended System Orientation to increase efficiencies in training
- Created a standard resident presentation evaluation form for all programs
- Created a preceptor development plan for use by all preceptors in training
- Added a Preceptor Tool Box and precepting articles to internal website
- Better defined rating scales with definitions for NI/SP/ACH/ACHR
- Developed a new method of data acquisition for resident projects to allow for faster access to data earlier in the residency year
- Standardized manuscript format
- Better aligned research deadlines to match key landmarks through the project manuscript process
- Standardize process for lecture selection*

- Provide all residents with laptops and remote access*
- Hold mock Interviews during the Core Curriculum Series
- Standardized required rotations across sites*
- Standardized staffing start date across all sites*
- Provided training in PharmAcademic during orientation*
- Standardized holiday staffing requirements and pay*
- Arranged for residents to all stay together at Midyear*
- Introduce PGY2 directors at orientation for early commit purposes*
- Modified application scoring rubric
- Coordinated interviews at select sites so candidates can interview at 2 sites/day
- Coordinated interview dates so RPD can attend each interview
- Developed Multi-Site Program policy in accordance with new PGY1 accreditation standard
- Updated policy and procedures in residency manual to reflect requirements in new accreditation standard
- Create “Clinical Core Curriculum” across the system to cover basics everyone should know*

** implemented based on direct resident feedback*

Resident Project List

Class of 2022-2023

Resident	Title
Auna Rasmussen PGY1 IMC	Effects of An Antimicrobial Stewardship Telehealth Intervention on Antibiotic Therapy Duration for Community-Acquired Pneumonia (CAP)
David Zingale PGY1 IMC	Evaluation of prednisone prescribing practices across a health system in the management of mineralocorticoid excess in prostate cancer treated with abiraterone acetate
Maggie Haynes PGY1 IMC	Post-discharge Thromboprophylaxis in Trauma Patients: A Retrospective Cohort Analysis Comparing the Use of Low Molecular Weight Heparin and Direct Oral Anticoagulants
Melina Bachtar PGY1 IMC	Evaluation in the Compliance Rates of Bone Protective Agents in Prostate Cancer Patients on Androgen Deprivation Therapy
Sarah Bittner PGY1 IMC	Medications for Pain and Agitation in COVID-19 Patients with Acute Respiratory Distress Syndrome: Comparison to a Historical Cohort
Elise Vickland PGY1 LDS Hospital	Antimicrobial de-escalation following febrile neutropenia in haploidentical hematopoietic stem cell transplant patients
Maranda Renouard PGY1 LDS Hospital	Analysis of Outcomes Following Change in Growth-stimulating Factor Administration Policy in Multiple Myeloma Patients Receiving Melphalan Autologous BMT
Brandon Gill PGY1 McKay	Real-world assessment of tissue plasminogen activator and DNase therapy for the treatment of pleural space infections
Macey Ulibarri PGY1 McKay	Continuous Infusion of ketamine for sedation in mechanically ventilated intensive care unit patients
Kristine Jermakian PGY1 PCH	Amoxicillin/Clavulanic Acid Dose and Formulation Selection: Impact of Indication Associated Dose and Product Selection on Prescribing Behaviors
Mickey Rosqvist PGY1 PCH	Antibiotic & Oxygen Use in Neonates with Respiratory Distress
Will Cannon PGY1 St. George	Outcomes associated with revised cefazolin breakpoints for complicated urinary tract infections
Lea Ljubacic PGY1 UVH	Evaluation of Pharmacist-Driven Collaborative Practice Agreement (CPA) compared to Physician Managed Blood Glucose for Hospitalized Patients Requiring Insulin Therapy
Parker Robinson PGY1 UVH	Opioid use and pain control in GI surgical patients treated with intravenous vs oral acetaminophen: a retrospective cohort study
Vincent Anella PGY1 UVH	Prompt De-escalation to Narrow-Spectrum Antibiotics in Patients with Gram Negative Monomicrobial Bacteremia
Addie Naegle PGY1 Community	The Impact of Pharmacist Consultation on Vaccination Rates among Rheumatology, Gastroenterology and Dermatology Patients treated with Specialty Medications

Class of 2021-2022

Resident	Title
Brittany Harnicher PGY1 IMC	Perioperative bleeding rates with the administration of intraoperative desmopressin during cardiac surgery
Karlee Paloukous PGY1 IMC	Is the MRSA nasal swab predictive of Ventilator-Associated Pneumonia (VAP) in traumatic brain injured patients?
Emily Ingals PGY1 IMC	Antibiotic Prescribing for Adult Bacteriuria and Pyuria in Community Hospital Emergency Departments: Impact of Pharmacy Intervention and Education
David Zingale PGY1 IMC	Effect of intraoperative methadone administration on perioperative opioid use
Jenna Creelman PGY1 IMC	Efficacy of Hepatitis B Recombinant Adjuvanted Vaccine Versus Hepatitis B Non-Adjuvanted Vaccine in Immunosuppressed, Chronic Kidney Disease, and Chronic Liver Failure Patients
Brady Vance PGY1 LDS Hospital	Implementation of AUC-based vancomycin dosing and monitoring
Jerrica Tang PGY1 LDS Hospital	Incidence of CRS with Earlier Immunosuppressive Therapy Post Haplo-Stem Cell Transplant
Chris Eppich PGY1 McKay-Dee	Antipsychotic Lab Monitoring on Non-Psych Floors
Braxton DeFriez PGY1 McKay-Dee	Prevalence of viridans group streptococci (VGS) amongst IVU in emergency department patients
Mandee Lines PGY1 PCH	Percent Time in Therapeutic Range for Bivalirudin versus Heparin in Pediatric Extracorporeal Membrane Oxygenation (ECMO)
Colin Maehler PGY1 PCH	Utility and Impact of Pharmacogenomic Testing in Pediatric Behavioral Health Clinics
Graham Mortensen PGY1 St. George	Review of negative urine cultures in ED patients treated for UTI
Regan LeeMaster PGY1 UVH	Comparing new subcutaneous DKA protocol vs IV drip DKA protocol
Hayden Gerrard PGY1 UVH	Implementation of Pharmacist CPA for Insulin Management at UVH
Maria Saimbert PGY1 UVH	Impact of sodium-Glucose Cotransporter (SGLT2I) on Dosing of Diuretics and Potassium Supplementations in Patients with Heart Failure (HF) at Ambulatory Care Clinics

Class of 2020-2021

Resident	Title
Leah Hildreth PGY1 LDS Hospital	Post-transplant azacitidine maintenance following haploidentical hematopoietic stem cell transplant
Amanda Grady PGY1 LDS Hospital	Cumulative Corticosteroid Exposure over Time and CMV Infection Risk in Allogeneic Hematopoietic Stem Cell Transplant Recipients
Maddy Hill PGY1 PCH	VTE primary prophylaxis in chylothorax

Megan Williams PGY1 PCH	Eculizumab levels in transplant-associated thrombotic microangiopathy (TA-TMA)
Same Wilde PGY1 St. George	Risk Factors for Errors in Discharge Prescriptions from a Community-Hospital Emergency Department: A Retrospective Cohort Study
David Gillins PGY1 McKay	Resistance development in short-term broad spectrum vs. long-term narrow spectrum antibiotics in the treatment of cystitis and pyelonephritis
Marshall Jorgensen PGY1 McKay	Implementation of an advanced clinical intern program
Natalie Turin PGY1 UVH	Impact of infectious diseases specialists on outcomes in individuals receiving outpatient parenteral antimicrobial therapy (OPAT)
Michelle Laird PGY1 UVH	Evaluation of inpatient pharmacist-driven versus physician-driven blood glucose management: A multicenter, retrospective analysis
Liz Shields PGY1 UVH	Gentamicin dosing in neonates
Rachel Belcher PGY1 IMC	Evaluation of antibiotic prophylactic use in patients with delayed sternal closure post cardiothoracic surgery
Lindsey Catlin PGY1 IMC	Decitabine and cytarabine for induction therapy in AML
Meagan Wakefield PGY1 IMC	Evaluation of UTI care practice model compliance for choice of antibiotic in medically-ill patients
Spencer Davis PGY1 IMC	Evaluating 4-Factor Prothrombin Complex Concentrate Dosing for the Reversal of Direct Oral Anticoagulants (DOACs) in the Setting of Intracranial Hemorrhage (ICH)
Ku'ulei Stuhr PGY1 IMC	Post-Transplant Pharmacist Education and Pillbox Filling: Prospective Evaluation of Patient Understanding and its Effect on Readmission Rates and Rejection Incidence
Anna Pham PGY1 Community	Analysis of the value and impact of community pharmacists' documented clinical interventions to the health system
Brad Williamson PGY1 Community	
Samantha Eshelman PGY1 SelectHealth	The impact on A1c and total cost of care adding CGM coverage for members with type 2 diabetes using short acting insulin in a regional health plan
Samuel Kim PGY1 SelectHealth	Comparison of Treatment Patterns Following Initiation of Renflexis or Remicade
Rhiannon Garcia PGY2 Critical Care	Low versus high dose four-factor prothrombin complex concentrate in cardiothoracic surgery

Mark Nguyen PGY2 ED	N-acetylcysteine duration in acetaminophen toxicity
Casey Buckway PGY2 Cardiology	Sodium-glucose Cotransporter-2 (SGLT2) Inhibitor Prescribing in Heart Failure with Reduced Ejection Fraction
Carly Crowder PGY2 ID	Appropriateness of antibiotic prescribing in the urgent care setting
Phil Barker PGY2 Peds	Evaluating Empiric Antibiotics in Pediatric Patients in a Cardiac Intensive Care Unit
Yuhong Liu PGY2 MUSP	Standardizing the medication history process at an integrated health system
Josh McDonald PGY2 Amb Care	Impact of Clinical Pharmacist Interventions on Outcomes of Full Risk Patients with Polypharmacy in an Ambulatory Care Setting
Angela Sutt PGY2 Amb Care	Evaluating the impact of pharmacist intervention on 30-day readmission rates in high-risk post-discharge patients

Class of 2019-2020

Resident	Title
Casey Buckway IMED	Assessment of optimal P2Y12 inhibitor prescribing practices
Sara Kjerengtroen IMED	Evaluating 4-Factor prothrombin complex concentrate anticoagulation reversal in obesity
Jessica Le IMED	Hyperkalemia and elevated serum digoxin concentrations: impact on mortality
Tyler Tinkham IMED	Efficacy and cost analysis of CMV prophylaxis in liver transplant recipients
Jenny Vang IMED	Appropriateness of pneumococcal vaccine administration
Ali Earl UVH	Patient outcomes in ampicillin-resistant Enterococcal UTI treated with amoxicillin
Casey Bryant UVH	A retrospective efficacy and safety analysis of low dose versus high dose 4-factor prothrombin complex concentrate for the management of factor Xa inhibitor-related bleeding
Philip Barker PCH	Evaluation of a Standardized Hydration Protocol in Hospitalized Pediatric Patients with Cystic Fibrosis Receiving Nephrotoxic Antibiotics
James Hall PCH	Assessment of the implementation of an emergency department care process model for pediatric urinary tract infection

Fran Vakalahi McKay-Dee	Cost-minimization analysis of oral antimicrobial therapy for gram negative bacteremia
Lorna Carrasquillo McKay-Dee	Association of pain scores and pain medication administration
Yuhong Liu LDS Hospital	Evaluation of compliance with a system wide ertapenem criteria restriction and the restriction's impact on days of therapy
Julieta Lewellyn LDS Hospital	Retrospective efficacy analysis of decitabine and cytarabine for induction therapy in patients with acute myeloid leukemia (AML)
Briee Landis Community	Impact of prescription synchronization on medication adherence at health system community pharmacies
Beatriz Cadilla Community	Health system implementation of Refill Authorization Collaborative Practice Agreement between physicians and pharmacist in multiple community pharmacies
Stephanie Byrne SelectHealth	The impact of strict prior authorization criteria on utilization of subcutaneous calcitonin gene-related peptide inhibitors for the prevention of chronic and episodic migraine: An observational study
Wilson Pace PGY2 Cards	
Jordan Cardinal PGY2 ED	Retrospective review of beta-lactam drug challenges in patients with listed penicillin and cephalosporin allergies in the Emergency Department setting
Rachel Jackson PGY2 Peds	Safety and Efficacy of CD3 Guided Anti-Thymocyte Globulin Dosing After Pediatric Heart Transplant
Amanda Stefl PGY2 Amb Care	Impact of continuous glucose monitor use on quality of life, self-care, and A1c levels for patients with type-2 diabetes
Patrick Welch PGY2 Amb Care	
Caroline Conner PGY2 Critical Care	Epidemiology and resistance rates of Candidemia in intensive care unit patients

Class of 2018-2019

Resident	Title
Jordan Gabrielsen IMED	Factors associated with inappropriate inpatient apixaban prescribing practices
Brooke Hueftle IMED	Assessment of duration and de-escalation of vancomycin in patients with febrile neutropenia
Wilson Pace IMED	Catheter associated urinary tract infection reduction in the neuro critical care unit: a pre/post protocol study

Lauren Schumacher IMED	Anticoagulation in post-liver transplant recipients with portal vein thrombosis
Emily Siegrist IMED	Weight-based versus flat dosing of digoxin loading doses
Alyssa Strohmusch McKay-Dee	Evaluation of multimodal tranexamic acid administration on patient hemostatic status post total joint arthroplasty
Patrick Welch McKay-Dee	Implementing clinical pharmacist services for hypertensive patients in a primary care setting
Jeremy Daugherty PCH	Description of bivalirudin anticoagulation in pediatric patients with ventricular assist devices
Logan Peterson PCH	Liposomal amphotericin B associated nephrotoxicity in obese and non-obese patients
Tyler Gunderson UVH	Comparing rates of constipation in TKA/THA patients after implementation of a bowel care program
Ashley Holombo UVH	Impact on time to tPA administration comparing medication preparation location in patients with presumed acute ischemic stroke in the emergency department
Rachel Jackson UVH	Evaluation of the effect of SMOFlipid versus intralipid on TPN-induced cholestasis in the neonatal population
Brooke Miller Community	Naloxone dispensing rates in a hospital-based community pharmacy: A retrospective study
Austin Reese Community	Community pharmacist's role in naloxone distribution during the post-operative period: a retrospective, single center, observational study
Mohit Bhakta SelectHealth	Increased risk of cardiovascular event following prescription testosterone therapy in men
Andrew Gudac SelectHealth	Naloxone utilization in an insured patient population at risk of opioid overdose
Danielle Nguyen HSPA PGY2	Impact of pharmacist-delivered inpatient medication counseling on 30-day readmission rates
Philip Bassett Amb Care PGY2	Clinical pharmacists' interventions using a standardized comprehensive medication management process in an ambulatory care setting
Alex Boyd Amb Care PGY2	Impact of comprehensive medication management (CMM) on transitions of care following hospitalization
Jordan Lacoste Cardiology PGY2	Outcomes associated with optimization of guideline directed medical therapy (GDMT) in patients admitted for an acute heart failure exacerbation
Breyanna Reachi Critical Care PGY2	4-Factor prothrombin complex concentrate (4FPCC) dosing strategies: a retrospective evaluation

Elyse Schwab-Daugherty Emergency Medicine PGY2	Appropriate utilization of alteplase for the treatment of pulmonary embolism within Intermountain Healthcare
Valerie Tran Pediatrics PGY2	Retrospective review of the treatment of central line infections in pediatric oncology patients

Class of 2017-2018

Resident	Title
Kate Harper LDS Hospital	Weight-based enoxaparin prophylaxis and low-molecular weight anti-Xa monitoring in obese patients undergoing therapy for hematological malignancies
*Andrew Keim McKay-Dee	Pharmacist medication counseling referrals and their impact on HCAHPS
*Sarah Iannacone McKay-Dee	Combination of opioids with multiple sedative medications and incidence of naloxone administration in hospitalized patients
*Danielle Nguyen IMED	Incidence of invasive candidiasis and risk factors in early post liver transplant recipients
Christa Creech IMED	A multi-center retrospective study evaluating the utility of MRSA nasal PCR swabs to reduce time to antimicrobial de-escalation in HAP and VAP patients
Ayrron Sisley IMED	Intravenous immunoglobulin usage pattern in neonates at a multicenter health system
*Elyse Schwab-Daugherty IMED	Outcomes associated with timing of parenteral anticoagulation after administration of alteplase for the treatment of venous thromboembolism
*Philip Bassett IMED	Evaluation of the effect of compliance to an institutional nursing-driven heparin protocol on time to therapeutic aPTT range
Brandon Tritle IMED	Clinical impact of rapid diagnostic tests with and without real-time pharmacist notification
Miranda Lackie IMED-PGY2 CC	Safety and efficacy of non-steroidal anti-inflammatory drugs in aneurysmal subarachnoid hemorrhage
Ruixin Shi IMED-PGY2 ED	Patient utilization of prescription opioids after discharge from the emergency department
Amanda Gillispie PCH	Retrospective analysis of the utilization of antibiotics in the treatment of pulmonary exacerbations in pseudomonas negative CF patients
*Valerie Tran PCH	Differences in initial tacrolimus dosing and monitoring for pediatric heart, liver, and kidney transplant recipients

*Trey Smith Primary Children's- PGY2	Pharmacokinetic modeling for initial and maintenance heparin dosing in patients receiving extracorporeal membrane oxygenation
Andy Killpack Select Health	1. Four-year opioid prescribing trends in a commercially insured patient population 2. Impact of 7-day first-fill opioid prescribing in a commercially insured patient population
Bailee Binks UVH	The impact of G-CSF in patients admitted for the treatment of neutropenic fever
Donna Eom UVH	Postoperative fluid management in open-heart surgery: albumin versus normal saline
Haili Gentry UVH	The role of IV acetaminophen in post-surgical patients
Allison Tenhouse Utah Valley- PGY2 Card	Comparison of direct oral anticoagulants in obese patients with recurrent venous thromboembolism
Carolyn Garland PGY2- Am Care	Extended-interval home INR testing
*Monica Rauch PGY2- Am Care	liraglutide impact on new onset heart failure
Melinda Gonzales Community	Community pharmacist led cost consults: patient and health system costs, benefits, and predictions
Dylan Nelson HSPA PGY2	A pilot project examining the benefits of pharmacist interventions utilizing TeleHealth services

Class of 2016-2017

Resident	Title
*Ryan Jensen LDS Hospital	Amlodipine and calcineurin inhibitor induced renal dysfunction following allogeneic hematopoietic stem cell transplantation
*Anthony Putich McKay-Dee	Does pharmacist-driven nasal swab methicillin-resistant staphylococcus aureus (MRSA) PCR screening decrease time to de-escalation of MRSA coverage in patients with pneumonia?
*Gavin Gardner McKay-Dee	Rate of naloxone use in patients receiving an opioid compared to those using opioids and a sedative/hypnotic medication
Dylan Nelson IMED	A comparison of extended interval and conventional gentamicin dosing protocols on renal function in preterm neonates born less than 30 weeks gestation
Lauren Flieller IMED	Clinical value of the co-administration of albumin and furosemide in cirrhotic patients
Joshua Jacobs IMED	Antithrombotic use for acute ischemic stroke secondary to infective endocarditis and the risk of major hemorrhage: a multi-center retrospective cohort study

Kyle Malhotra IMED	Apixaban vs warfarin in severe renal dysfunction
Klay Ryman IMED	Comparing time to CABG in STEMI patients loaded with P2Y12 inhibitors versus those who were not
Ruixin Shi IMED	Influenza infection and the risk of thromboembolic events in critically ill patients
Alina Kurita IMED-PGY2 CC	Hyperchloremia and incidence of acute kidney injury in adult patients with traumatic brain injury
Michelle Adamcyk IMED-PGY2 ED	Evaluation of ketamine for refractory status epilepticus
Christian Armstrong PCH	Evaluation of sodium glycerophosphate versus inorganic phosphates in the incidence of metabolic bone disease in premature neonates
*Trey Smith PCH	Assessing heparin flow rates in patients on Extracorporeal Membrane Oxygenation (ECMO)
*Chelsea Williams Primary Children's PGY2	Treatment of delirium in pediatric critically ill patients
Kyle Stirewalt Select Health	<ol style="list-style-type: none"> 1. Rates of serious adverse events associated with targeted biological therapies in the treatment of inflammatory diseases at a managed care plan: A historical claims analysis 2. Costs of serious adverse events associated with targeted biological therapies in the treatment of inflammatory diseases at a managed care plan and their incorporation into the formulary decision process
*Rebecca Christiansen UVH	Evaluating mortality in patients with massive pulmonary embolism receiving low dose versus standard dose tissue plasminogen activator (tPA)
Andrew Good UVH	Compilation of antibiotic susceptibility of uropathogens in the emergency department to create a department specific antibiogram
*Aubrey Pimsakul UVH	Utilization of 340B funding to develop a pharmacy driven diabetes starter kit for pediatric patients newly diagnosed with diabetes during hospital admission
Melanie Madorsky UVH - PGY2 Card	Antithrombotic strategies utilized for the secondary prevention of ischemic stroke in patients with atrial fibrillation on warfarin
Diana Fischer PGY2- Am Care	Development of a scoring tool to identify patients to target during pharmacist-provided transitions of care medication reconciliation
Hannah Pratt PGY2- Am Care	Efficiency and economic implications of collaborative pharmacist support in primary care
Keeshia Christensen Community	Effect of discharge medication delivery service on medication adherence

Nicole Dimaano HSPA PGY2	Impact of pharmacist-delivered inpatient medication counseling on 30-day readmission
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Class of 2015-2016

Resident	Title
Hannah Pratt McKay-Dee	Cost justification of a transitions of care pharmacist
Annie Torosyan McKay-Dee	Assessment of the treatment of bacteremia by pharmacists versus the historical standard of care in a community hospital emergency department
*Carly Heyrend, PGY2 PCH	Use of antithrombin III in pediatric patients receiving heparin
Holly Ann Russell PCH	Safety and efficacy of high dose cefepime in pediatric cystic fibrosis patients
*Chelsea Williams PCH	Use of second generation antipsychotics for delirium in critically ill pediatric patients
Laura MacCall IMED PGY2 ED	Impact of antibiotic stewardship on appropriate antibiotic prescribing for urinary tract infection in the emergency department
Alex Serafino IMED PGY2 CC	Venous thromboembolism associated with the use of tranexamic acid
Nicole Dimaano IMED	Meeting expectations: do HCV cure rates (SVR12) in real-life patient cohorts hold what clinical trials promised?
Dan Fischer IMED	Prothrombin complex concentrates vs fresh frozen plasma for the emergent reversal of warfarin-related intracranial hemorrhage
*Lilian Ooi IMED	Diagnostic performance of the methicillin-resistant Staphylococcus aureus (MRSA) nasal swab PCR for MRSA pneumonia
Regan Sevinsky IMED	Assessment of febrile neutropenia management in hospitalized adult cancer patients; a retrospective review
*Joshua Lee UVH PGY2 Card	Implementation of an ambulatory heart failure clinic
*Caleb Hopkinson UVH	Length of hospital stay and outcomes in patients with venous thromboembolism: comparison of different anticoagulant regimens
Halee Namanny UVH	Incidence of methicillin-resistant Staphylococcus aureus (MRSA) and nephrotoxicity in patients empirically treated with vancomycin
Ali Pryne UVH	Retrospective evaluation of safety and efficacy in the treatment of cervical artery dissection at a large, multi-site healthcare facility

*Whitney Mortensen Admin PGY2	An academic detailing pilot program in a large, integrated health system
Josh Rickard Am Care PGY2	Frequency of toxicity monitoring in ambulatory patients on amiodarone and dofetilide
*Bradly Winter Am Care PGY2	Assessing the need and opportunity for clinical pharmacist involvement in renal dosing of novel oral anticoagulants (NOACs)
*Chance Keddington Community	Diabetic education and impact on diabetic outcomes
Thomas Nguyen SelectHealth	Comparison of clinical outcomes of diabetes medications added to metformin for treatment of type 2 diabetes mellitus in a managed care plan: a historical cohort study Evaluation of an Opioid Medication Management Agreement (MMA) Program Among Commercial Health Plan Members: A Retrospective Claims Analysis

Class of 2014-2015

Resident	Title
Mallory McCullough McKay-Dee	Evaluating the risk of nephrotoxicity in different interval regimens of vancomycin
*Renee Pitt McKay-Dee	Measuring hospitalists' perception of pharmacist participation on a rounding team
*Angela Wolsey PCH	Efficacy of unfractionated heparin monitored by anti-Xa versus aPTT
*Brian Wyrowski PCH	Standardization of weaning process for iatrogenic opioid withdrawal in pediatric intensive care unit patients
Kellie Holtmeier PCH	Outcomes of parenteral nutrition-associated cholestasis in pediatric patients
Kristin Martinez IMED	Time to clinical stability in patients diagnosed with pneumococcal pneumonia in obese versus non-obese patients
*Scott Parkin IMED	Efficacy of a single vs. dual antibiotic agent prophylaxis in open fracture patients
*Vidya Pugazhenth IMED	Outcomes of a pharmacist-managed glucose collaborative practice agreement at Intermountain Medical Center
*Joshua Lee UVH	Evaluation of antimicrobial management of urinary tract infections at a tertiary hospital
Melissa Selden UVH	A retrospective cohort study of a pharmacist-managed Transition of Care program and its effect on 30-day readmission rates
*Steven Metz UVH	A retrospective controlled trial assessing procalcitonin to guide antibiotic therapy

*Whitney Mortensen Admin PGY1	Evaluating the appropriate use and indications of atypical antipsychotics in patients discharged from an inpatient setting
*Alan Horrocks Admin PGY2	Health-system implementation and evaluation of a revised pharmacy technician professional development program
*Stephanie Chauv IMED, PGY2 Critical Care	Colonization secondary to resistant microorganisms in patients on prolonged systemic antibiotic prophylaxis for intracranial pressure monitoring
*Cody Olsen SelectHealth	Changes in Anti-hyperlipidemic Drug Utilization Post 2013 ACC/AHA Treatment of Blood Cholesterol Guideline Release: A Retrospective Claims Analysis Evaluation of an Opioid Medication Management Agreement (MMA) Program Among Commercial Health Plan Members: A Retrospective Claims Analysis

Class of 2013-2014

Resident	Title
*Brittany Bryan McKay-Dee	Evaluation of skin and soft tissue clinical pathway in reducing ertapenem use in the emergency department at a 325 bed community hospital
*Brittan Jacklin McKay-Dee	Effects of rounding serum creatinine on estimated creatinine clearance in elderly patients with a serum creatinine less than 1 mg/dL
*Michael Helm PCH	Metabolic monitoring and body mass index changes in pediatric patients treated with second generation antipsychotics
Michael Lahart PCH	Assessing the adequacy of standardized multi-vitamin supplementation in short-bowel syndrome patients
*Anh Lam PCH	Retrospective analysis of intravenous versus oral antivirals for cytomegalovirus prophylaxis in pediatric hematopoietic stem cell transplant recipients.
Becca Dieter IMED	Laparoscopic donor nephrectomy and primary post-operative pain control therapy
*Crosby Oldham IMED	Evaluating clinical outcomes based on pharmacologic variability of oral antiplatelet agents in the setting of acute coronary syndrome (ACS)
Amy Sannes IMED	The Impact of Pharmacist Culture Follow-Up on Antimicrobial Therapy for Emergency Department Patients
Ashley Richman UVH	A retrospective evaluation of prothrombin complex concentrate (PCC) safety and efficacy outcomes for emergent warfarin reversal according to corporate protocol

Sadie Roestenburg UVH	Pharmacy Driven Scoring and Alert System Identifying Hypoglycemia Risk Among Rehab Patients
Ndidi P. Alino Admin	Impact of venous thromboembolism (VTE) quality measures on post-surgical mortality and morbidity in an integrated healthcare system.
*Alan Horrocks IMED/Admin	Pharmacist-driven management of hyperglycemia in a non-ICU setting: evaluation of a collaborative practice protocol in comparison to other methods of glycemic control for patients with acute coronary syndrome
*Gabe Fontaine IMED, PGY2	Incidence of venous thromboembolism (VTE) in medical and critically ill obese patients receiving VTE chemoprophylaxis
*Liz Schwab SelectHealth	Impact of healthcare reform on contraceptive utilization patterns and adherence

Class of 2012-2013

Resident	Title
Madison Hatch McKay-Dee	Oral β -lactams versus oral fluoroquinolones in the treatment of urinary tract infections
*Leah Quealy McKay-Dee	Efficacy of vancomycin loading doses in critically ill patients with methicillin-resistant Staphylococcus aureus (MRSA)
Travis Hunt PCH	Sterility Analysis of Cystic Fibrosis Liquid Multivitamins
*Irasema Paul PCH	Predictive monitoring of zinc, copper, manganese, selenium, and iodine to maintain serum concentrations in parenterally fed pediatric patients
*Gabriel Fontaine IMED	Rate of major bleeding in patients with atrial fibrillation taking dabigatran or rivaroxaban in a real-world setting
*Shannon Inglet IMED	Seizure Prophylaxis in Patients with Traumatic Brain Injury
*Jacob Blackham UVH	The Clinical and Financial Impact of Implementing a Medication Assistance Voucher Program Under the 340B Drug Pricing Program
Kelly Holcomb UVH	Implementation of a pharmacist-driven pertussis vaccination clinic at a community hospital
Jason Braithwaite Admin	Defining the impact of central fill services on outpatient pharmacies in an integrated delivery system utilizing time and motion methodology

Ndidi P. Alino IMED/Admin	Implementation of Pharmacist-managed Transitions of Care Program at Intermountain Medical Center
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Class of 2011-2012

Resident	Title
*Justin Palfreyman McKay-Dee	Cost effectiveness of a clinical pharmacist on the surgical floor
*Natalie Savage McKay-Dee	Prothrombin Complex Concentrate (PCC) alone versus Factor VIIa and PCC to rapidly reverse elevated INR
*Nathan Gorney PCH	Comparing the efficacy of rifaximin versus lactulose for the treatment of pediatric hepatic encephalopathy
*Jake Luke PCH	Evaluation of antibiotic use and effectiveness in the treatment of necrotizing enterocolitis in NICU patients
Jordan Sheffer PCH	Dosage of carnitine supplementation in total parenteral nutrition in pediatric patients: a retrospective analysis
*Ryan Cardon IMED	Retrospective analysis comparing daily prophylactic sulfamethoxazole/trimethoprim 800/160 mg to 400/80 mg and 30-day incidence of UTI in adult kidney transplants
*Erin Grussendorf IMED	Evaluation of efficacy and tolerability of medications for seizure prophylaxis following subarachnoid hemorrhage
*Quang Hoang IMED	Retrospective analysis of antibiotic-induced mild-moderate and severe C-diff associated diarrhea
Truong Nguyen IMED	Evaluating the Effectiveness of a System Approach to Infusion Pump Alerts Compared to Individual Smart Pump Alerts
*Becky L. Doman UVH	Creation and Implementation of a performance-based pharmacy intern program and improvement in clinical knowledge, skill and workplace satisfaction
*Sophia Maedjaja UVH	The Financial and Philanthropic Impact of a Hospital and Community Pharmacy Partnership Under the 340B Drug Pricing Program
*Matthew Higley Admin	Patients' Perception of the Communication about Medicines Dimension on the HCAHPS Survey Tool
Jason Braithwaite IMED/Admin	Determination of appropriate eligibility criteria for pharmacist provided clinical services as part of a patient-centered medical home.

Class of 2010-2011

Resident	Title
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*Aleesha Richman McKay-Dee	Creation, Implementation, and Evaluation of an Adult Antibiotic Order Form Comparing the Appropriate Use of Antibiotics
*Tyson Bigelow McKay-Dee	Standardizing treatment with lithium therapy in an inpatient psychiatric unit by implementing a pharmacy lithium protocol
*Christian Larsen PCH	Outcomes of Parenteral Nutrition-Associated Cholestasis in Children: A Retrospective Analysis
*Whitney Leonard PCH	Retrospective Evaluation of Appropriate Duration of Intravenous Antibiotic Therapy For Acute Exacerbation of Cystic Fibrosis
Tom Peterson PCH	Retrospective Study of Empiric Antibiotic Use in Ventilator-Associated Pneumonia in Children
*Jeremy Bair IMED	Assessing Compliance with Infectious Diseases Society of America Guidelines for Catheter-related Bloodstream Infections
*David Hwang IMED	Increased Risk of Nephrotoxicity Associated with Vancomycin Loading Doses ≥ 25 mg/kg
*Mike Brown IMED	Bleeding Events Associated with Bivalirudin Compared to Glycoprotein IIb/IIIa Inhibitors: a Large, Single Center, Retrospective Analysis
*Jed Milne UVH	Using Capillary Zone Electrophoresis to Determine the Stability of Promethazine Hydrochloride in Normal Saline
Emily Oien UVH	Implementation of an Inpatient Pharmacy-Managed Anticoagulation Service
*Chad Marsing Admin	Evaluation and validation of pharmacist workload metrics
*Matt Higley IMED/Admin	Comparison of Extended Clopidogrel Therapy Versus Standard Therapy for Very Late Stent Thrombosis in Patients Receiving an Everolimus Eluting Stent

A complete list of resident projects from 2002 to 2010 is available upon request