UC San Diego Health

Pharmacy Residency Manual
2027-2028

This Pharmacy Residency Manual serves as a comprehensive guide to the policies, procedures, and expectations of the residency programs. Onboarding pharmacy residents are required to attest they have read and understand this document.

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UC San Diego Health – Who We Are

https://health.ucsd.edu/

UC San Diego Health's (UCSDH) mission is to deliver outstanding patient care through commitment to the community, groundbreaking research, and inspired teaching. Our vision is to create a healthier world – one life at a time – through science, new medicine, and new cures.

To fulfill our mission, University of California San Diego Medical Center also known as UCSDH currently maintains a regional strategy, integrating research, teaching and clinical care at locations in Hillcrest and La Jolla. Each medical complex supports acute in-patient care and a spectrum of outpatient primary and specialty medical and surgical services, including emergency patient care. Ambulatory clinics located throughout the county to further help us to deliver care to the entire region. Our three hospitals, comprised of UC San Diego Medical Center in Hillcrest, La Jolla Campus (Jacobs Medical Center, Sulpizio Cardiovascular Center, and Thornton Hospital), and East Campus, operate under one license with a current combined capacity of 1101 beds.

UC San Diego Medical Center in Hillcrest, established in 1966, currently serves as a clinical teaching site for UC San Diego School of Medicine and the focal point for community service programs. It houses several specialty care centers that allow the urban campus to serve as a major tertiary and quaternary referral center for San Diego, Riverside and Imperial counties. These care centers include the area's only Regional Burn Center, and one of only two adult Level I Trauma Centers in the county. The campus is also home to the Owen Clinic, which is among the nation's top HIV care programs.

The La Jolla campus is home to Jacobs Medical Center and Moores Cancer Center, the primary site for outpatient oncology care and the region's only National Cancer Institute-Designated Comprehensive Cancer Care Center, with nearly 350 medical and radiation oncologists, surgeons and researchers. The La Jolla campus also includes Shiley Eye Institute, a multi-specialty vision center with the region's only facility dedicated to children; as well as Sulpizio Cardiovascular Center, the region's first comprehensive cardiovascular center and the global leader in pulmonary thromboendarterectomy (PTE). The PTE operation was first performed at UCSDH and is now systematically employed at select health care centers around the world. Koman Family Outpatient Pavilion and McGrath Outpatient Pavilion – expanded our services in orthopedics, urology, breast health, advanced imaging, rehab and outpatient surgeries.

UCSDH offers primary, specialty, urgent and express care at clinics conveniently located throughout the region. Our physicians also provide care to patients at Rady Children's Hospital San Diego and Veteran Affairs San Diego Healthcare System. We maintain partnerships with other medical providers to offer services as diverse as advanced radiation therapy to at-home hospice care. These combined sites and partnerships enable UCSDH to offer highly specialized services at a continuum of care that can heal and comfort our patients.

UC San Diego Health Department of Pharmacy

The UCSDH Department of Pharmacy is responsible for service to its three primary locations of La Jolla, Hillcrest, and East Campus which includes: UC San Diego Medical Center in Hillcrest, Jacobs Medical Center, and Sulpizio Cardiovascular Center, and East Campus Medical Center. In addition, the department provides services to the Moores Cancer Center, Koman Family Outpatient Pavilion, Pharmacy Infusion Services (PhIS), Encinitas Cancer Center, Vista Cancer Center, various outpatient clinics, as well as several ambulatory care pharmacies. The Department is staffed by approximately 500 FTEs, including pharmacists, pharmacy technicians, pharmacy interns, and administrative personnel. Currently, we have 26 pharmacy residents, including 15 postgraduate year one (PGY1) pharmacy residents and 11 postgraduate year two (PGY2) pharmacy residents in a variety of specialty areas. UCSDH is also a primary teaching site for UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (UCSD SSPPS) pharmacy students who participate directly in the provision of patient care.

Pharmacists and pharmacy residents serve as members of interdisciplinary patient care teams on inpatient medical, surgical and intensive care units, with special emphasis in transitions of care, oncology, HIV, transplant, trauma, surgery, medicine, neonatology, cardiology, and infectious diseases. In our ambulatory care areas, we have special emphases on family practice, anticoagulation, dermatology, allergy, psychiatry, transplantation, gastroenterology, neurology, multiple sclerosis, rheumatology, cystic fibrosis, heart failure, CKD, HIV, Hepatitis C, pulmonary hypertension and other advanced pulmonary diseases. The Department also has formal programs in the areas of informatics, antimicrobial stewardship, and investigational drug services. Responsibility for patient care is shared by the staff, faculty, residents, and students. Pharmacists actively collaborate with other healthcare providers in managing patient therapies. Our pharmacy residents have the opportunity to participate in the UCSD Student-Run Free Clinics operated primarily by Medical and Pharmacy students. Additionally, our pharmacy home infusion service staff, which includes pharmacists, pharmacy technicians and nurses, provides care for a wide range of patients.

In support of our decentralized clinical pharmacy and emergency department services, the Department operates a 24-hour centralized drug distribution area at Hillcrest, La Jolla, and East Campus. Drug distribution is provided through a house wide, point-of-use unit dose system, which uses computer-actuated dispensing equipment (automated dispensing cabinets (ADCs); Pyxis Medstations or Omnicell Cabinets). UCSDH utilizes Epic as its system-wide electronic health record (EHR). Barcode technology and scanning is utilized, when possible, in the medication management process.

UC San Diego Health Pharmacy Residencies

UCSDH Department of Pharmacy offers post-graduate residency programs in the following areas: PGY1 Pharmacy (Program Number 92350), PGY1 Pharmacy (Program Number 92048), PGY2 Cardiology Pharmacy, PGY2 Critical Care Pharmacy, PGY2 Health-System Pharmacy Administration and Leadership, PGY2 Infectious Diseases Pharmacy, PGY2 Internal Medicine Pharmacy, PGY2 Oncology Pharmacy, PGY2 Pharmacy Informatics, PGY2 Psychiatric Pharmacy, and PGY2 Solid Organ Transplant Pharmacy. These residency programs are accredited or granted pre-candidate status by the American Society of Health-System Pharmacists (ASHP).

PGY1 Purpose: PGY1 residency programs build upon Doctor of Pharmacy (PharmD) education and outcomes to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives. Residents who successfully complete PGY1 residency programs will be skilled in diverse patient care, practice management, leadership, and education, and be prepared to provide patient care, seek board certification in pharmacotherapy (i.e., BCPS), and pursue advanced education and training opportunities including postgraduate year two (PGY2) residencies.

PGY2 Purpose: PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions, and board certification in the advanced practice area, if available.

The residency is expected to begin on the last Monday of June/July, or first Monday of July/August, depending on the Human Resources orientation schedule for PGY1/PGY2 respectively.

Pharmacy Residency Program Commitment Statement

UCSDH is dedicated to advancing post-graduate pharmacy education as a key part of its mission to improve public health. By investing in these programs, UCSDH ensures that pharmacy residents are equipped to meet the evolving healthcare needs of California and the nation. This commitment includes providing the necessary educational, financial, and human resources for excellence throughout the graduate education process. UCSDH offers a supportive and challenging environment for pharmacy residents from diverse backgrounds, preparing them for careers focused on patient care, research, teaching, and lifelong learning. Residents gain state-of-the-art knowledge, experience in compassionate care, and guidance from healthcare professionals to ensure patient safety and well-being.

The pharmacy residency programs are designed to help pharmacy residents develop clinical, ethical, and professional skills while ensuring safe and appropriate patient care. These programs encourage self-evaluation and prepare pharmacy residents to continue their education and share knowledge with others throughout their careers. UCSDH provides a collaborative setting with diverse patient populations, specialized services, and advanced technological resources. The programs are aligned with the ASHP Residency Competency Areas and goals, while UCSDH ensures a safe and supportive learning environment, following established policies and procedures.

Pharmacy Resident Appointment Requirements

The UC San Diego Health Pharmacy residency programs participate in the PhORCAS online application process. Eligible candidates must apply through PhORCAS and must meet the requirements outlined for the respective residency programs.

Programs select candidates for interviews based on their qualifications, preparedness, and demonstrated potential for success in the program. Clinical aptitude, communication skills as well as their ability to uphold the mission of the UCSDH Department of Pharmacy are considered in the selection process. The UCSDH residency programs participate in the PhORCAS electronic application process as well as the ASHP Resident Matching Program. Match results are binding. PGY2 programs may elect to participate in the UC System Wide Early Commitment (SWEC) Process as outlined in Appendix P whereby a position in a PGY2 program may be committed to a current UCSDH or other UC system wide PGY1 in advance of the matching process, under the conditions as outlined by the ASHP Pharmacy Resident Matching Program.

PGY1 Pharmacy Residents Eligibility Requirements

1. Graduate or candidate for graduation of an Accreditation Council for Pharmacy Education (ACPE) accredited PharmD degree program (or one in the candidate process), or have a Foreign Pharmacy Graduate Equivalency Committee (FPGEC) certificate from the National Association of Boards of Pharmacy (NABP)
2. Must be a United States Citizen or a Permanent Resident
3. Licensed or eligible for licensure as a pharmacist in the state of California
    a. Obtain California pharmacy intern license prior to beginning of the residency appointment; offer may be rescinded if the resident does not have a California pharmacy intern license prior to start of the appointment year
    b. Obtain California pharmacist license within 120 days of the start of the residency program; failure to be a licensed pharmacist in California within 120 days of the start date of the residency will result in dismissal from the residency program
4. Upon hire by UCSDH, along with any other requirements by UCSDH Human Resources:
    a. Provide proof of United States citizenship or permanent residence (Green Card)
    b. Complete a full verification and criminal background screen
    c. Attend new employee orientation (NEO)

PGY2 Pharmacy Residents Eligibility Requirements

1. Graduate of an Accreditation Council for Pharmacy Education (ACPE) accredited PharmD degree program (or one in the candidate process), or have a Foreign Pharmacy Graduate Equivalency Committee (FPGEC) certificate from the National Association of Boards of Pharmacy (NABP)
2. Must be a United States Citizen or a Permanent Resident
3. Licensed or eligible for licensure as a pharmacist in the state of California
    a. The residency is expected to begin on the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule.
    b. The pharmacy resident must have obtained their California pharmacist license prior to beginning residency. The start date will be delayed until their California pharmacist license is obtained.
    c. The resident has until November 1st to obtain their California pharmacist license. Failure to do so will lead to dismissal from the program.
4. Successfully completed an ASHP-accredited or candidate status PGY1 pharmacy residency
    a. Upon receipt of application to the program, the RPD will contact the PGY1 program director if RPD/RPC is not writing a letter of recommendation.
    b. A signed PGY1 residency certificate must be submitted prior to beginning the residency program. The start date will be delayed until the PGY1 residency certificate is obtained. If a pharmacy resident cannot provide PGY1 residency certificate by September 1st, the resident will be dismissed from the program.
5. Upon hire by UCSDH, along with any other requirements by UCSDH Human Resources:
    a. Provide proof of United States citizenship or permanent residence (Green Card)
    b. Provide PGY1 certificate of completion (see above)
    c. Complete a full verification and criminal background screen
    d. Attend new employee orientation (NEO)

Criminal Background Screen Policy

Completion of a satisfactory Criminal Background Check (CBC) will be a requirement for all newly appointed pharmacy residents employed by UCSDH. Thereafter, obtaining and maintaining licensure will be evidence of an ongoing satisfactory CBC.

Procedures

1. Contracts sent by UCSDH Human Resources will include a statement about the requirement of a satisfactory CBC and completion of an attestation questionnaire as a condition of employment
2. CBC's will be performed by a reputable company through the usual business contracting arrangements
3. Matched pharmacists-in-training will be asked to provide appropriate authorization, with the pertinent identifying information necessary to initiate the check
4. Those undergoing the CBC will have an opportunity before any information in released to UCSD to review the data for accuracy
5. The following databases would be searched:
    a. Social Security number validation
    b. Analyzed Social Security number search
    c. County criminal records search
    d. Nation criminal file search
    e. National sexual offender database search
    f. Sanctions Base search
6. CBC reports flagged by HR for further review will be reviewed by the RPD, RAC and the Chief Pharmacy Officer, who will make a decision about entry into the program; there is no appeal to this decision

Pharmacy Resident Responsibilities:

The PGY1 and PGY2 pharmacy residents agree to the following performance expectations and other related duties as assigned.

1. Be committed to the values and mission of UCSDH and the Department of Pharmacy
2. Develop and participate in a personal program of self-study and professional growth with the guidance from pharmacy preceptors, advisors, staff, faculty and the RPD
3. Under the supervision of pharmacy preceptors, staff, faculty, and the RPD, participate in safe, effective and compassionate patient care, consistent with the pharmacy resident's level of education and experience
4. Participate fully in the educational activities of the pharmacy residency program, including all learning experience requirements assigned, and assume responsibility for the teaching of more junior pharmacists, students, and allied healthcare professionals
5. Participate in institutional programs and activities and adhere to established practices, procedures, and policies of the institution
6. Participate in committees of the Department of Pharmacy and hospital committees as assigned by the RPD or learning experience preceptors
7. Develop an understanding of ethical, socioeconomic, and medical/legal issues that affect fiscally responsible pharmacy practice and patient care
8. Perform all duties in accordance with the established practices, procedures, and policies of the institution, its programs, clinical departments to which the pharmacy resident is assigned
9. Adherence to the moonlighting policies of the Pharmacy Residency Program
10. Comply with the duty hours and working conditions policies of ASHP, UCSDH, and the program in which the pharmacy resident is appointed
11. Adhere to the learning experience and staffing schedules, as assigned. Pharmacy residents may be required to fulfill staffing needs in any event affecting pharmacy operations (i.e. pandemic, work stoppage, crisis management, etc.)
12. Document patient care activities appropriately and in a timely manner
13. Participate in the PharmAcademic evaluation system, including evaluation of self, preceptors, learning experiences and the Residency Program in a timely manner; in addition, pharmacy residents must seek, participate in, and apply to practice constructive verbal and written feedback that directs their learning
14. Comply with the licensure requirements of the program in which the pharmacy resident is appointed
15. Comply with specific/special onboarding requirements of affiliated institutions to which the pharmacy resident may rotate as part of their training; these requirements may include, but are not limited to, criminal background checks, substance abuse testing, and health screenings
16. Adhere to the policies defined in the UCSDH Pharmacy Residency Policy and Procedure Document for Pharmacy Residents
17. Pharmacy residents are required to have and use a UCSDH email account and are expected to check their email at reasonably frequent intervals unless they are on approved leave. Pharmacy residents must comply with UCSDH policies and state and federal laws that apply to email.

Scope of the Pharmacy Residency Program

The pharmacy residency programs, within the Department of Pharmacy, provide clinical pharmacy services to all areas of UCSDH, including inpatient areas, infusion centers, associated outpatient clinics and ambulatory care pharmacies. The health system is affiliated with the UCSD School of Medicine and UCSD Skaggs School of Pharmacy and Pharmaceutical Sciences. The Department of Pharmacy at UCSDH has full and complete control over the residency program operations, curricula, and staffing. The residency program directors maintain authority over the program. Clinical pharmacists may interact with providers from many settings, including but not limited to internal/hospital medicine, intensive care units, neonatal ICU, cardiothoracic transplant, bone marrow transplant, cardiology, heart failure, oncology, infectious diseases, and HIV/AIDS.

The pharmacy residency programs are tailored to the individual and strive to balance direct patient care, research, and teaching or precepting. Pharmacy residents will provide patient care via direct patient interaction or in coordination with medical teams. Emphasis will be placed on designing, recommending, implementing, monitoring, and evaluating patient-specific, patient-centered therapeutic regimens that incorporate the principles of evidence-based medicine and transitions of care. In addition, pharmacists are an active member of the code team and actively use their Pharmacy and Therapeutics (P&T) Committee approved authority to make renal dose adjustments, dose adjustments based on pharmacokinetics analysis (e.g. anticoagulants, anticonvulsants, antimicrobials, insulin transitions, and parenteral nutrition, etc.), and provide medication therapy management via collaborative practice agreements, and more. Pharmacy resident teaching activities may include but are not limited to facilitating conferences and precepting pharmacy students. The ability to work independently and to precept pharmacy residents and students will be emphasized as applicable. Pharmacy residents will be involved in a residency project, which will include evaluation of biomedical literature and evidence-based medicine, coordination with IRB services, and scientific writing.

Orientation to the Pharmacy Residency Program

The purpose of the orientation learning experience is to introduce the new pharmacy resident to aspects of UCSDH and the Department of Pharmacy. The pharmacy resident will attend a UCSDH New Employee Orientation (NEO) to learn about the benefits that they receive during their appointment. Following the NEO, the pharmacy resident will review the Residency Program Manual with a RPD where the pharmacy resident will be introduced to their individual program structure and requirements. During orientation, the pharmacy resident will complete competencies, as required by the Department of Pharmacy Policies and Procedures and receive electronic medical record training. Competencies are assigned by practice area. The goal of this orientation learning experience is to familiarize the pharmacy resident with UCSDH, the residency program, and requirements for completion. Training checklists for various staffing areas (i.e. inpatient staffing, outpatient staffing, infusion center staffing, and transitions of care) should be completed prior to the end of the training period, per individual program requirements. Completed checklists should be returned to the appropriate manager and Administrative Assistant for inclusion in the pharmacy resident's personnel file. Pharmacy residents should refer to the appropriate program appendix for specific program requirements. All pharmacy residents are expected to evaluate the Orientation learning experience in PharmAcademic.

Residency Program Structure

Resident Advisory Committee (RAC)
The Pharmacy RACs serve a critical role in guiding and supporting pharmacy residency programs to ensure they meet educational and professional standards. Its primary purpose is to provide oversight, strategic direction, and continuous quality improvement for residency training, aligning with accreditation requirements and institutional goals. The committee is typically composed of residency program directors, preceptors, and administrative leaders who collaborate to develop curriculum, assess program outcomes, and mentor residents.

Description, Competency Areas, Goals, and Objectives:
The description, competency areas, goals and objectives of each program will vary depending on the focus of the individual program. Pharmacy residents are encouraged to refer to the appropriate program appendix for specific programs to learn more about these areas.

- PGY1 Pharmacy (Program 92350) Residency: Please see Appendix A
- PGY1 Pharmacy (Program 92048) Residency: Please see Appendix B
- PGY2 Cardiology Pharmacy Residency: Please see Appendix C
- PGY2 Critical Care Pharmacy Residency: Please see Appendix D
- PGY2 Health Systems Pharmacy Administration and Leadership Residency: Please see Appendix E
- PGY2 Infectious Diseases Pharmacy Residency: Please see Appendix F
- PGY2 Internal Medicine Pharmacy Residency: Please see Appendix G
- PGY2 Oncology Pharmacy Residency: Please see Appendix H
- PGY2 Informatics Pharmacy Residency: Please see Appendix I
- PGY2 Psychiatric Pharmacy Residency: Please see Appendix J
- PGY2 Solid Organ Transplant Pharmacy Residency: Please see Appendix K

Learning Experience Evaluations

UCSDH residency programs use the ASHP on-line evaluation tool, PharmAcademic. This system, which was built and technologically supported by the McCreadie Group, supports the ASHP residency standards while providing documentation of a systems-based approach to training for ASHP-accredited residencies.

Pharmacy residents matched with UCSDH are entered into the PharmAcademic system before they begin their program. Prior to starting, they complete self-assessment questionnaires, which assist the RPD in customizing the residency experience to align with each pharmacy resident's individual needs and interests. During orientation and quarterly meetings—and as needed throughout the year—pharmacy residents discuss their goals and interests (Development Plan) with the RPD. The initial Development Plan will be discussed with the pharmacy resident within 30 days of starting the program. The Development Plan will track the pharmacy resident's progress towards achieving any agreed-upon completion requirements. Appropriate and necessary modifications to the Development Plan will be documented and reflect the pharmacy resident's schedule needs and changing interests. Pharmacy residents may also request changes to their schedule during the residency, and the RPD will strive to accommodate these requests. PharmAcademic will be updated accordingly to reflect any changes. The RPD and the pharmacy resident will complete the final Development Plan at the completion of the residency and as part of pharmacy resident closeout. If the pharmacy resident has met the completion requirements, the evaluation will verify that the pharmacy resident has demonstrated sufficient professional ability to practice independently. The final evaluation shall be made part of the pharmacy resident's PharmAcademic record.

Pharmacy residents will participate in the annual review of the program, learning experiences, conferences, teaching opportunities, and RPD, and are encouraged to offer recommendations for their residency program improvement throughout the residency year.

UCSDH preceptors and pharmacy residents are expected to evaluate the pharmacy resident's work in PharmAcademic in a consistent manner to achieve pharmacy resident goals and objectives. The pharmacy resident's performance is described as needs improvement (NI), satisfactory progress (SP), achieved (ACH), and achieved for residency (ACHR). Definitions for the pharmacy resident's achievement are listed below and should be used consistently among all preceptors.

Rating Scale	Definition	PharmAcademic Objective Comments
Needs Improvement (NI)	• Deficient in knowledge/skills in this area • Often requires assistance to complete the objective • Unable to ask appropriate questions to supplement learning	• Document what the resident needs to improve to obtain an SP or ACH status

Satisfactory Progress (SP)	• Resident is performing and progressing at a level that should eventually lead to mastery of the goal/objective • Adequate knowledge/skills in this area • Sometimes requires assistance to complete the objective • Able to ask appropriate questions to supplement learning • Requires skill development over more than one rotation	• Document what the resident needs to improve to obtain an ACH status
Achieved (ACH)	• Fully accomplished the ability to perform the objective independently in the learning experience • Rarely requires assistance to complete the objective; minimum supervision required • No further developmental work needed for the learning experience	• Document comments if desired
Achieved for Residency (ACHR)*	• Resident consistently performs objective independently at the achieved level, as defined above, across multiple settings/patient populations/acuity levels for the residency program. • ACHR is designated based on either of the two following processes: o Program director or coordinator reviews and assesses each resident's performance from summative evaluations o For objectives taught and evaluated in multiple learning experiences or multiple quarters, ACHR requires having an evaluation of "achieved" on two separate learning experiences or quarterly evaluations. o For objectives taught and evaluated once in a learning experience may be marked ACHR after a one-time evaluation of "achieved". o For PGY1 programs and clinical pharmacy practice focused PGY2 programs, any objectives other than R1 may be marked as ACHR after a one-time evaluation of "achieved". o RAC meeting by consensus of RAC members o The program director or coordinator presents resident performance and applicable objectives at the RAC meeting. The RAC confers ACHR ratings by consensus, based on consistent performance across evaluations and/or learning experiences. Once confirmed, the rating is documented in RAC minutes, the resident's development plan, and updated in PharmAcademic.	

*For any objective(s) previously marked as ACHR, subsequent preceptors are not required to rate or comment on such objective(s). At any time during the residency timeline, if a preceptor and/or the RPD observe any resident performance as needing reinforcement, remediation, and/or further assessment, the ACHR rating may be reversed from the associated objectives for further training and evaluation.

Preceptors and pharmacy residents are encouraged to exchange in on-going, frequent verbal feedback throughout each learning experience. Additional evaluations may be added, as needed, or upon request. Longitudinal Learning Experiences have quarterly Summative (preceptor-initiated) and end of the experience Summative and Preceptor/Learning Experience evaluations (pharmacy resident-initiated). Pharmacy residents complete the ASHP PharmAcademic exit evaluation, the Objective-Based Residency-Self Evaluation. Pharmacy residents also are requested to complete an evaluation of their residency program, at the end of the year, as administered by the specific program. The results of this end-of-the-year program evaluation are shared with the RAC and may be the basis for action plans in an effort to achieve continuous quality improvement.

Pharmacy residents and preceptors are reminded throughout the year to complete evaluations in a thorough (quantitatively and qualitatively) and timely manner. To this end, evaluations may be used, not only as assessment tools, but as tools that preceptors may turn to for understanding the pharmacy resident's progress and for help in guiding pharmacy residents to improve, grow and achieve the residency programs and the pharmacy residents' goals and objectives for the residency year. The RPD reviews all evaluations and solicits feedback from preceptors and pharmacy residents to provide guidance to help the pharmacy resident maximize the residency experience.

Successful Completion of Learning Experiences

Each PGY1 and PGY2 program has a variety of required and elective learning experiences. Required learning experiences in each program will include, but are not limited to, orientation, staffing, and pharmacy resident major project. At UCSDH, the major project is a research project. For more information about required and elective experiences, please

visit the appropriate appendix, as listed throughout this document. Descriptions of each program's learning experiences can be found in PharmAcademic.

The learning experience description will indicate the expectations for pharmacy resident's successful completion which will include the relevant required and/or elective goals and objectives; it may also include other tasks and projects based on the preceptor's design of the learning experience such as topic discussions, in-service presentations, journal clubs, and medication-use evaluations. It is the preceptor's responsibility to orient the pharmacy resident to the learning experience. It is the pharmacy resident's responsibility to ensure that they clearly understand these expectations during orientation to the learning experience. During the learning experience, the preceptor will continually assess the pharmacy resident's progress toward completing the required elements. Successful completion of a learning experience is defined as all learning experience objectives marked satisfactory progress (SP), achieved (ACH) or achieved for residency (ACHR) by the final evaluation of the learning experience. A component of successful completion from UCSDH Residency Programs is completion of all learning experiences by the conclusion of the program timeline.

If at any point during the residency year, the resident fails to meet their obligations and responsibilities inherent to successful completion of a specific learning experience or component of residency training, a performance improvement plan may be imposed (see Appendix Q).

Longitudinal Projects

1. **Residency Project**
    a. Each pharmacy resident is expected to design and complete one major project under the guidance of a project preceptor during the residency year. To assist the pharmacy resident in learning how to conduct quality projects, the Research Council will provide a Research Primer Course. Each meeting of the Research Primer Course is either modeled after the ASHP Foundation Research Fundamentals series or is derived from pharmacy resident feedback on items felt to be important to completing a Research Project (e.g. Excel tips, using statistical software). Projects are typically presented at the UC Collaborative Conference (or at a program-specific specialty conference of the RPD's choice). The project will be written in manuscript format suitable for publication. Details of the pharmacy resident project/research can be found in Appendix O. Project days are to be used accordingly to complete any residency related projects.
2. **Medication Use Evaluation (MUE)**
    a. The PGY1 pharmacy resident will learn to evaluate and improve the formulary and/or medication use processes for patients, as applicable to the organization (and patient population), through the process of MUE. PGY1 pharmacy residents may begin their MUE assignment while on their administration rotation although could be assigned at other times depending on availability of project topics (Appendix L).
    b. PGY2 pharmacy residents will coordinate the topics and expectations of the MUE with their RPD and MUE coordinator, if required by the goals and objectives set forth by ASHP. PGY2 pharmacy residents will complete MUE longitudinally, per the program structure (Appendix L).
3. **Pharmacy Resident Presentations**
    a. Pharmacy residents are required to give educational presentations to a variety of health care professionals throughout their residency year. Details can be found in Appendix L. On-demand learning opportunities, which are not described in Appendix L, may arise throughout the year and the preceptor or RPD will explain each opportunity to the pharmacy resident.

Schedule

Schedules pertaining to pharmacy resident learning experiences/rotations will be loaded onto Teams.

Examples of these schedule include:

- Year-long learning experience schedule
- Monthly pharmacist schedule (note inpatient pharmacist schedules are found on Teams or StaffReady)
- Weekend staffing assignments
- Presentation schedules
- Ambulatory care longitudinal assignments
- Transitions of care assignments
- Therapeutics Conference assignments

Professionalism

Pharmacy residents are expected to demonstrate professional and personal attributes both within and outside the boundaries of UC San Diego Health. A preceptor who is concerned about a pharmacy resident's behavior will give feedback to the pharmacy resident and make suggestions for improvement. If the behavior is repeated (or is sufficiently serious at the outset) the preceptor will notify the RPD. The RPD may choose to discipline pharmacy residents for issues related to professionalism, consistent with the policies outlined in Appendix Q.

Examples of behaviors that are unprofessional and warrant a report to the RPD include but are not limited to:

- Engages in abuse of power in interactions with patients or colleagues
- Engages in bias and/or sexual harassment
- Failure to respect patient autonomy and/or confidentiality
- Any HIPAA violation
- Failure to attend required lectures, group sessions
- Failure to complete required rotation presentations, projects and/or assignments
- Failure to show up for a rotation or patient related activity; failure to notify or make appropriate contact with the preceptor; unexcused/repeated tardiness; tardiness without notifying the preceptor
- Unprofessional attire and/or hygiene
- When attempts to provide the pharmacy resident with verbal feedback about an issue have been unsuccessful; has difficulty incorporating feedback in order to make changes in behavior; does not accept blame for failure or responsibility for errors
- Plagiarism or inappropriately citing other's work
- Misrepresents or falsifies actions and/or information
- Taking vacation or leave before fully (including RPD signature) completing a Leave Adjustment Form
- Not documenting time away in EcoTime in accordance with pharmacy policy and procedures
- Does not respond in a reasonable manner to residency-related communications (patient/clinical or administrative)
- Demonstrates difficulty fulfilling academic and professional responsibilities or tasks in a reliable and timely manner
- Is unaware of their inadequacies and limitations
- Is abusive or excessively critical during times of stress
- Cannot establish and maintain appropriate boundaries in work and learning situations
- Lacks empathy and demonstrates insensitivity to the needs of peers, patients, and/or others
- Does not function well within the health care team
- Does not demonstrate honesty
- Does not contribute to an atmosphere conducive to learning
- Does not respect diversity of race, gender, religion, sexual orientation, age, disability or socioeconomic status
- Does not resolve conflicts in a manner that respects the dignity of every person involved
- Does not use professional language
- Does not use appropriate names and titles when addressing faculty and preceptor

Plagiarism

During the course of the pharmacy residency, the pharmacy resident will be expected to create original work or give appropriate credit when using ideas, concepts or words of another person(s). This will include items such as IRB backgrounds, topic discussion handouts, journal clubs, clinical forums, grand rounds, etc. Each pharmacy resident will be expected to create their own work or appropriately cite others works. Failure to do so may result in disciplinary action (Appendix Q).

Donald A. Sears wrote a useful tool on how to 'Understand Plagiarism and Avoid It'. Below is an excerpt from his book:

It will be well to ask yourself if you fully understand what constitutes PLAGIARISM, for the range of meaning of the word is wide. At one extreme is the gross offense of trying to pass off as one's own the exact words of another; at the other extreme is the subtle manner of "borrowing a fine phrase to dress up one's own writing". In between are varying degrees of plagiarism that often puzzle a student. Through ignorance a student may in all honesty misuse his sources in such a way that he is guilty of plagiarism; but he is nonetheless guilty, for ignorance cannot be an acceptable excuse for wrongdoing.

An analogy to other kinds of dishonesty may help. To use another's words or ideas is roughly the intellectual equivalent of stealing the funds of a dormitory, fraternity, cooperative house, or sorority for one's own use. However, funds are made up of concrete money; words and ideas are abstract, and consequently the line between honest and dishonest use may be harder to define. There are, of course, correct and honorable ways of using sources just as there are correct and honorable ways of borrowing money. Forms of acknowledgment have to be included with your use of source material in the same way that legal forms have to fill out before a bank will let you use its money.

1. WORD-FOR-WORD PLAGIARISM
This includes (a) the submission of another student's work as one's own; (b) the submission of work from any sources whatever that is not properly acknowledge by footnote, bibliography, or reference in the paper itself; (c) the submission of any part of another's work without proper use of quotation marks.

2. PATCHWORK-QUILT PLAGIARISM
As our grandmothers used to put together large quilts out of scraps of cloth, a student may make the mistake of passing off as an original paper one that is stitched together with phrases and sentences taken from his sources. If he does not include quotation marks around all such borrowings he is committing plagiarism. Here rearrangement of phrases into a new pattern does not confer originality.

3. UNACKNOWLEDGED PARAPHRASE
An author's discovery of fact or original interpretation of fact is as much his property as his exact words are. Restatement by means of paraphrase does not remove the necessity of giving credit to the original sources.
The development of intellectual honesty is a primary goal of college education. Plagiarism, besides being dishonest in itself, defeats this purpose of college. When detected it is always severely punished, usually by expulsion. When undetected, punishment is nevertheless certain in the intellectual corruption of the plagiarizer.

Reference: Donald A. Sears. Harbrace Guide to the Library, 2nd ed. (New York, 1960), pp. 38-39.

Use of Technology and Equipment

Artificial Intelligence (AI)

UCSDH supports the cautious, responsible use of AI tools by pharmacy residents as a supplement to learning and professional development. AI must never replace clinical judgment or decision-making. Use of AI must be transparent, with content verified against credible sources and appropriately cited. No protected health information (PHI), personal identifiers, or confidential data may be entered into public AI platforms. Residents must discuss planned AI use with their preceptor or RPD, and some cases may require review by the RAC. All use must comply with UCSDH policies; in the absence of a formal agreement with AI providers, usage is considered personal and subject to the platform's terms of use.

Use of Personal Laptops

UCSDH provides each resident with a designated work laptop. If a resident opts to use a personal laptop for any work-related activities during their residency, the device must comply with the security standards established by the UCSDH Information Security Team. UCSDH-specific software may need to be installed as part of this process. Storing HIPAA-protected information, datasets, or email attachments on personal laptops is strictly prohibited. All such data must remain within secure, UCSDH-managed environments.

Teaching

UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS)

UCSDH is a primary site for Introductory and Advanced Pharmacy Practice Experience (IPPE and APPE) pharmacy students from the SSPPS. Our pharmacy residents and clinical faculty serve as preceptors for the pharmacy students during these experiences. Pharmacy residents, under the guidance of the pharmacist preceptor, will provide preceptorship for SSPPS students on rotation. Pharmacy residents are encouraged to develop skills in the four preceptor roles employed in practice-based teaching (direct instruction, modeling, coaching, and facilitation).

Pharmacy residents, as assigned by their program, will participate in various teaching opportunities at SSPPS. One of the main opportunities is in the Therapeutics Course sequence; pharmacy residents serve as facilitators in the case conferences. Cases and case keys are written and facilitated by the pharmacy residents. The facilitators are responsible for encouraging discussion, enhancing learning and assuring that the students provide an effective analysis of the case focusing on the areas of clinical importance. One of the primary functions of the case conferences is to enhance the ability of the student to apply the information learned in the basic and applied sciences to patient care.

San Diego Pharmacy Residency Leadership (SDPRL) Teaching Certificate Program

Detailed information about SDPRL Teaching Certificate program can be found in Appendix M.

Pharmacy residents participate in the SDPRL Program (PGY1: required; PGY2: optional), a county-wide program with pharmacy residents from other San Diego residency programs. Seminar topics will focus on teaching, precepting, and leadership development and will support the SDPRL Teaching Certificate Program. Seminar attendance is mandatory for PGY1 pharmacy residents and may include weekend programs. One excused absence is allowed provided the make-up assignment is completed within one week of being received.

Meetings

RPD meetings
PGY1 pharmacy residents and their respective RPD meet monthly to discuss various topics. Additional meetings will be called at either the discretion of the RPD or at the request of the pharmacy residents. The Assistant Chief Pharmacy Resident(s) prepare the agenda with the RPD and takes minutes for the meeting. Upcoming events, evaluations, projects, rotation pearls, travel arrangements and schedules are examples of the topics discussed. PGY2 pharmacy resident(s) meet with their RPD at regularly scheduled times throughout the year.

Professional meetings
PGY1 and PGY2 pharmacy residents are encouraged to join a professional organization and become active members through committee work or other activities. Additionally, pharmacy residents are required to attend various professional meetings throughout the year, including one meeting where the pharmacy resident will present the results of their residency project. Specifically, PGY1 Pharmacy Residents are required to attend CSHP (California Society of Health System Pharmacists) Seminar and/or ASHP (American Society of Health-System Pharmacists) Midyear Clinical meeting to assist in recruitment efforts. Assignments at the meetings will be based on interest and assigned by the RPD. Travel funds are included in the base salary.

Other professional meetings pharmacy residents may attend include:

- American Society for Microbiology (ASM) Microbe (formerly ICAAC)
- Society of Critical Care Medicine (SCCM)
- Hematology/Oncology Pharmacy Association (HOPA)
- American Association of Psychiatric Pharmacist (AAPP)
- International Society of Heart & Lung Transplant (ISHLT)
- UC Collaborative Annual Pharmacy Leadership Forum

Leadership Roles for Pharmacy Residents

Description of Positions

1. **Chief Pharmacy Resident**: The PGY2 Health-System Pharmacy Administration and Leadership (HSPAL) pharmacy resident at UC San Diego Health is assigned to assume the role of the Chief Pharmacy Resident, as determined by their RPD. This person will manage and coordinate activities pertinent to residency programs and co-residents at UC San Diego Health as defined in this document. If there is no PGY2 HSPAL pharmacy resident, an alternative PGY2 pharmacy resident may be assigned to fulfill this position as determined by their RPD(s). In the case that there is no PGY2 pharmacy resident to assume the position, the PGY1 pharmacy resident(s) will be eligible to fulfill this position as determined by their RPD(s). If this position is filled by PGY1 pharmacy residents, there will be no Assistant Chief Pharmacy Resident(s) for that year.
2. **Assistant Chief Pharmacy Resident(s):** A position fulfilled by PGY1 pharmacy resident(s). The PGY1 pharmacy residents will decide amongst the residency class who will volunteer for this responsibility. One or two pharmacy residents may hold this position each six months or for an entire residency year. The Assistant Chief Pharmacy Resident(s) will manage and coordinate activities pertinent to residency programs at UC San Diego Health as defined in this document.
3. **Resident Research Council Liaison(s):** A position fulfilled by PGY1 pharmacy resident(s). Position intended to help coordinate pharmacy resident research/project activities with the Research Council and project preceptors.
4. **Digital Communications Liaison:** A position fulfilled by PGY1 pharmacy resident(s). The position is intended to maintain the pharmacy residency social media platforms/website for pictures and bios of pharmacy residents, preceptors, RPD, and more.
5. **Social Engagement Liaison**: A position fulfilled by PGY1 pharmacy resident(s). Position intended to plan and coordinate resident meetups, social outings, and team-building activities for the residency class.
6. **Community Engagement Liaison**: A position fulfilled by PGY1 pharmacy resident(s). Position intended to help coordinate pharmacy resident involvement in community outreach and volunteer work.

Roles and Responsibilities

1. Chief Pharmacy Resident

- Pharmacy resident assumes title and begins to fulfil duties upon starting residency and for the duration of their residency appointment
- The Chief Pharmacy Resident will:
  - Oversee the activities of the Assistant Chief Resident(s) and coordinate the activities of pharmacy residents
  - Communicate the dates of various meetings (e.g. CSHP Seminar, Vizient UHC Pharmacy Network Meeting, ASHP Midyear Meeting, and UC Collaborative Annual Pharmacy Leadership Forum) to pharmacy residents, RPDs, and applicable managers to ensure that pharmacy residents will not be scheduled to staff during these periods
  - Participate in PGY1 application review and interview process
  - Contribute agenda items and attend monthly RPD meeting
  - Assist with other activities as assigned (e.g. National Pharmacy Week, PGY2 Aloha Party)
  - Assist with onboarding of new PGY1 pharmacy residents in July

2. Assistant Chief Pharmacy Resident(s)

- PGY1 pharmacy residents determine who will volunteer to be Assistant Chief(s) and the length of the Assistant Chief appointment (six months or one year)
- Pharmacy resident(s) assumes the title and begins to fulfill all duties of the Assistant Chief Resident(s) as defined by this document for the designated time period
- The Assistant Chief(s) will:
  - Work with the PGY1 RPDs, prepare an agenda for the monthly RPD meeting of the PGY1 RPDs and PGY1 pharmacy residents
  - Chair RPD meetings, take minutes
  - Assist RPD with recruitment efforts
  - Coordinate transportation of showcase materials to and from conferences, as well as shift assignments for pharmacy residents to be at showcase
  - Coordinate planning of an end of year celebration for current pharmacy residents finishing their year and new pharmacy residents starting the new year (PGY1 Aloha Party)
  - Assume the role and fulfill all duties of the Chief Resident should that position become vacant

Events Schedule for Assistant Chief Resident(s)

Jul - Jun	**RPD meetings (monthly)** • Confirm recurrent date/time/location • Create agenda

	• Work with Residency Administrative Assistant to arrange remote access • Attend • Take minutes
Aug – Sep	**Advisor Social:** Working with PGY1 Am Care Director (or their designee) to coordinate Advisor selection and social, if desired by class Coordinate individual and group photos for current pharmacy residents Update Preceptor bios/email addresses on Residency webpage
Oct-Nov	**Pharmacy Week**: Work with Residency Administrative Assistant to create Pharmacy Week Committee and serve as a member; help coordinate Pharmacy Week **CSHP Seminar Meeting** • **General:** Working with the RPDs, serve as the seminar coordinator and assist pharmacy residents in preparation for CSHP Seminar Meeting, including group photo, volunteer requirements, travel spread sheet, group dinner (if needed) • **Residency Showcase:** Help plan recruitment activities at the CSHP Seminar Meeting by scheduling pharmacy residents for the pharmacy resident showcase; responsibilities include arranging transportation of showcase materials, set up of the showcase, pharmacy resident coverage throughout the day, and re-packing the showcase materials to return to the hospital
December	**ASHP Midyear Clinical Meeting** • **General:** Working with the RPDs, serve as the Midyear coordinator and assist pharmacy residents in preparation including travel, lodging, travel spreadsheet, group photo and group dinner (if needed) • **Residency Showcase:** Help plan recruitment activities at the ASHP Midyear Clinical Meeting by scheduling pharmacy residents for the pharmacy resident showcase; responsibilities include arranging set up of the showcase, pharmacy resident coverage throughout the day, and re-packing the showcase for shipment home and return to the hospital, coordinate contacting interested candidates and thanking them for attending (if sign-in list utilized) **Holiday Card (optional)** • Organize creation of pharmacy resident holiday card and mailing to staff and faculty
December – February	**Recruitment:** • Coordinate the Pharmacy Resident Interview Room (rubric design, interview introductions, etc.)
March	Assign pharmacy resident buddies to incoming pharmacy residents
May - June	**PGY1 Aloha Party:** • Form committees to facilitate the planning of the end of the year party • Coordinate the selection and award for preceptor(s) of the year • Create and send out invitations, including to incoming pharmacy residents

3. Research Council Liaison(s)

Responsibilities:

- Update the pharmacy residents on upcoming residency project deadlines
- Keep track of the project timeline and any changes to listed deadlines
- Send out periodic emails with important reminders, coordinating with the Chief Resident and Assistant Chief Resident(s) as much as possible to minimize the number of reminder emails sent out
- Lead residency project discussions at RPD meetings
- Help resolve residency project-related issues for the pharmacy residents
- Serve as the “first call” for research-related questions from pharmacy residents to minimize frequent/repeated questions to the Chair of the Pharmacy Research Council

- Answer questions about IRB submission, seeking the help of Research Council members
- Provide templates/examples for various components of the residency project (e.g. poster, abstracts, manuscript outline, presentation, etc.)
- Serve as the pharmacy resident representative to the Pharmacy Research Council and attend meetings
- Communicate pharmacy resident concerns/issues to the Research Council and Directors

4. Digital Communications Liaison
The pharmacy resident serving in this role will be responsible for taking photographs of major pharmacy residency events, such as conferences, national pharmacy week, and social gatherings. The pharmacy resident will maintain the program-related social media platform as a social, communication and recruitment tool.

5. Social Engagement Liaison
This position may be asked to help plan and coordinate resident meetups, social outings, and team-building activities.

6. Community Engagement Liaison:
The position will attend the monthly Pharmacy Community Engagement Committee Meetings and provide updates to the pharmacy residency class as community outreach events are planned.

Pharmacy Residency Appointment, Benefits and Leave Policy

This document provides a summary; for more detailed information, please refer to the Human Health Resources website and/or the employment contract.

Salary and Benefits

Annual Salary
Refer to UC San Diego Health Pharmacy Residency website (https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/) for details on salary.

Vacation
Pharmacy residents accrue up to 15 days of vacation annually. Pharmacy residents cannot use vacation time until it is accrued. Unpaid, earned vacation time will be paid out to the pharmacy resident at the end of the residency year if it is not used.

Sick Leave
Pharmacy residents accrue up to 12 days of sick time annually. Pharmacy residents cannot use sick time until it is accrued. Unused, earned sick time will not be paid out to the pharmacy resident at the end of the residency year if it is not used.

Compensatory Leave
Pharmacy residents will receive an equal number of compensatory leave days to match the holiday staffing days at the beginning of the residency year. These days, referred to as Holiday Comp, are intended for paid time off and must be used before any accrued vacation or sick time. PGY1 pharmacy residents will receive 4–5 Holiday Comp days, while PGY2 pharmacy residents will receive 3–4 days, depending on the number of holidays staffed during the year.

Appointment Duration
The PGY1 appointment is to begin on the last Monday of June, or first Monday of July, depending on the Human Resources orientation schedule and may continue for 52 weeks. The PGY2 appointment is to begin on the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule and may continue for 52 weeks Your appointment will terminate automatically 52 weeks after starting unless (a) your appointment is terminated earlier pursuant to the section labeled TERMINATION OF APPOINTMENT AND AT WILL STATUS; or (b) the contract is extended prior to the termination date in writing signed by both parties pursuant to the section labeled RENEWAL OR EXTENSION OF THE CONTRACT. If the contract is extended, it will terminate automatically upon the expiration date of the extension unless terminated earlier pursuant to the section labeled TERMINATION OF APPOINTMENT AND AT WILL STATUS.

Duties and Responsibilities
Your duties and responsibilities shall be those set forth in the job description which is incorporated into this document. Additional duties may be assigned to you and the job description may be modified from time to time by management to accommodate changing circumstances and needs. Your duties and responsibilities shall be conducted in accordance with the health system's policies, procedures, and rules as established by management. You agree to perform all the duties set forth in your job description as well as those assigned by management.

Hours of Work
This appointment is at 100 percent of full time. The workweek for this position will be consistent with the ASHP Duty Hours Policy. The Department of Pharmacy at UCSDH will schedule your hours to accommodate operational needs. During the workweek, you are expected to work your regular schedule and to generally be available as business requires. As an exempt employee, you will **not** receive overtime compensation, and you will be expected to work the amount of time necessary to perform the assigned duties. This position emphasizes meeting the responsibilities assigned to this position, rather than working a specified number of hours.

Required Time on Block Learning Experiences
The workweek for a full-time exempt employee is generally 40 hours; however, the exact working hours may vary depending on the assigned learning experience and the scheduled weekend staffing shifts, not exceeding the ASHP Duty Hours Policy. For a block learning experience, a workweek consists of 5 days per week and a minimum of 4 hours per day spent on the learning experience activities. If less than 4 hours are spent on the learning experience, a vacation or sick day should be requested, or alternative arrangements made and approved by the RPD.

Compensation and Benefits

- Salary: This position is assigned to a payroll title assigned to the appropriate residency year (i.e. PGY1 or PGY2 Post PharmD pharmacy resident). The salary for this position is described earlier in this document, less applicable withholdings. Any changes in your salary shall be only by written amendment to this contract signed by both parties.
- Benefits: You shall be eligible for health system-sponsored health and welfare benefits and retirement benefits in accordance with the eligibility provisions and related regulations. Subject and subordinate to the eligibility provisions, plan documents, and regulations, the parties would anticipate that you would be eligible for full benefits at the beginning of this agreement, subject to change during its term.

Application of Personnel Policies for Staff Members (PPSM) and Other Policies

These policies may be changed by the University of California at any time and those changes will be applicable to you. You can find these policies here.

1. Policies Applicable to All Exempt Professional & Support Staff Contract Appointments
   - The PPSM listed below are incorporated into this agreement.
   - PPSM 1: General Provisions
   - PPSM 2: Definition of Terms
   - PPSM 3: Types of Appointment (Contract Appointment only)
   - PPSM 21: Selection and Appointment (except Selection)
   - PPSM 30: Compensation
   - PPSM 34: Incentive and Recognition Award Plans (if eligibility criteria are met)
   - PPSM 35: Uniforms and Safety Apparel (if applicable)
   - PPSM 62: Corrective Action
   - PPSM 63: Investigatory Leave
   - PPSM 70: Complaint Resolution (Discrimination complaints only)
   - PPSM 80: Staff Personnel Records
   - PPSM 81: Reasonable Accommodations
   - PPSM 82: Conflict of Interest
   - PPSM 83: Death Payments (if eligibility criteria are met)
   - PPSM 84: Accommodations for Nursing Mothers
   - PPSM 2.210: Absence from Work:
     - Section III.A: General Leave Provisions
     - Section III.B: Vacation Leave (if eligibility criteria are met other than the requirement that the employee hold a career, limited, or floater appointment)
     - Section III.C: Sick Leave (if eligibility criteria are met)
     - Section III.D: Leaves Related to Life Events (except Supplemental Family and Medical Leave; Extended Sick Leave pursuant to Work- Related Injury or Illness; and Personal Leave)
     - Section III.E: Military and Other Service-related Leaves
     - Section III.F: Administrative Leaves (except Professional Development Leave)
     - Section III.G: Other Leaves
     - Section III.H: Holidays (if eligibility criteria are met)

2. No other provisions of PPSM shall apply. PPSM may be revised as needed. Any changes to the provisions referenced above shall be applicable to you and shall be incorporated into this agreement.

3. In addition, current and/or amended University of California policies of general application shall apply to you. This includes, but is not limited to, the following:
   - Discrimination, Harassment, and Affirmative Action in the Workplace;
   - Electronic Communications Policy;
   - Patent Policy;
   - Policy on Substance Abuse;
   - Regents Policy 1111 (Policy on Statement of Ethical Values and Standards of Ethical Conduct);
   - Regents Policy 7706 (Reemployment of UC Retired Employees Into Senior Management Group and Staff Positions);
   - Reporting Child Abuse and Neglect;
   - Sexual Violence and Sexual Harassment;
   - Whistleblower Policy (Policy on Reporting and Investigating Allegations of Suspected Improper Governmental Activities); and
   - Whistleblower Protection Policy.

4. To the extent that any applicable University of California policy conflicts with the express terms of this agreement, the terms of this agreement shall apply.

Termination of Appointment and At Will Status
You are an at-will employee, which means your appointment may be terminated at any time by you or the health system, with or without notice, and with or without cause, in a writing served on the other party. Although other

terms and conditions can be changed from time to time at the discretion of the health system, the at-will status of this agreement cannot be changed, amended, or altered.

Termination is not reviewable under PPSM 70: Complaint Resolution, except for complaints of discrimination.

Renewal or Extension of The Contract
You and the health system may agree to renew your appointment. In order for the renewal to be effective, you and the health system must enter into a new employment agreement that sets forth the terms to the new agreement. In the alternative, the duration of the existing contract may be extended by mutual written agreement. The written extension must specify the new end date. Non-renewal and non-extension of your contract are not reviewable under PPSM 70: Complaint Resolution, except for complaints of discrimination.

General Provisions
Except for any other agreements set forth in the University of California State Oath of Allegiance, Patent Policy, and Patent Acknowledgement, this contract constitutes the entire agreement between the parties and supersedes any other prior agreements and any other representations made to you about the terms and conditions of your employment, whether written or oral. The terms of this agreement, except the at-will status, may be modified only by subsequent written agreement signed by both parties. In the event that any part of this agreement is declared or rendered invalid by court decision or statute, the remaining provisions of the agreement shall remain in full force and effect. California law shall govern the interpretation and construction of this agreement.

Other Conditions for Effective Contract
This employment contract is not effective until you have completed all payroll/personnel processing necessary to become a contract employee. This includes, but is not limited to, the federal requirement that you provide to the University documentary evidence of your eligibility to work in the United States.

Records Policy
The health system maintains as confidential the records of each pharmacy resident and the consent of the individual is required before access to records is allowed except where permitted or required by law, or where directly or routinely required in the administration of the training program. A pharmacy resident may inspect his/her records in accordance with current privacy legislation and policy.

Training At Affiliated Pharmacy Training Sites
Additional screening and procedural requirements may be mandated by affiliated institutions while pharmacy residents are rotating through those sites as a part of their pharmacy residency training at UCSDH.

Residents Experiencing Harassment and Discrimination

As noted by the Office for the Prevention of Harassment and Discrimination (OPDH), the University of California, in accordance with applicable Federal and State law and University policy, does not discriminate on the basis of race, color, national origin, religion, sex, gender identity, pregnancy, physical or mental disability, medical condition (cancer related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services. The University also prohibits sexual harassment. This nondiscrimination policy covers admission, access, and treatment in University programs and activities.

OPHD provides assistance to students, faculty and staff regarding reports of bias, harassment and discrimination. OPHD is the Title IX office at UC San Diego. Our mission is to educate the entire UC San Diego community about these issues and to assist with the prevention and resolution of these issues in a fair and responsible manner. In collaboration with other UC San Diego resources, OPHD promotes an environment in which all members of the UC San Diego community can work, learn and live in an atmosphere free from all forms of bias, harassment and discrimination.

OPHD supports UC San Diego's Principles of Community, and our mission reflects the University's commitment to maintaining “a climate of fairness, cooperation, and professionalism.” We join others at UC San Diego in embracing “diversity, equity, and inclusion as essential ingredients of academic excellence in higher education.”

For information on how to report an incident of sexual violence, visit Sexual Violence Prevention & Response.
UC San Diego is committed to the highest standards of civility and respect toward all as reflected in the UC San Diego Principles of Community. The university rejects acts of harassment and discrimination, works to resolve concerns, and investigates known facts to determine if university policies have been violated.

Why Report?
Filing a report helps the university maintain a safe environment that supports the educational mission of the institution. In addition, unreported bias incidents can perpetuate continued bias and erode the campus climate.

Ways to Report
Report suspected bias incidents to the OPHD office in the following ways:
Online — OPHD Web Form (Available at any time)
Email — Send a report to ophd@ucsd.edu (Available at any time)
By Phone — (858) 534-8298
If you are experiencing an emergency, please contact 911 or UCSD Police at (858) 534-HELP.
You may also contact confidential CARE at the Sexual Assault Resource Center for immediate support, counseling and advocacy. CARE is available to UCSD students, staff, faculty, patients, and others who experience sexual violence in the context of a University program. Contacting CARE does not constitute a report to the University.

What to Include in Your Report
Keep any evidence, including photographs, written notes, documents and contact information for witnesses or other persons involved with the incident. File a report as soon as possible after the incident occurs to preserve the accuracy of information.
Note: A lack of "hard evidence" or significant time lapse since an incident occurred should not discourage you from filing a biased report but may limit what actions can be taken.

Who Can Report
Any member of the community can use this form to report bias incidents involving members of the UC San Diego community or third parties.
Report hate crimes to UC San Diego Police.
Phone: (858) 534-4357
Fax: (858) 534-6192
Campus location: Campus Services Complex — Building B (map)
If you wish to remain anonymous, you may omit your name and contact information on the form. However, anonymous reports can make follow-up more difficult or unsuccessful. For the community's greater good, you are encouraged to include your contact information. If you are fulfilling your Responsible Employee mandated reporting requirement, you may not fill out this form anonymously.

Responsible Employees
As a Responsible Employee, you must contact OPHD as soon as possible when you learn that any UCSD student, staff, faculty, or patient has potentially experienced an incident of sexual violence or sexual harassment. Share whatever

information you have, including the names of any individuals involved, their contact information, and any details of the incident you have.

As a Responsible Employee, you should report directly to OPHD, even if you are unsure that the incident actually occurred or unsure whether it constitutes sexual harassment or sexual violence. You should not investigate the report and should not try to intervene or resolve the issue.

The Title IX officer will assess the information you provide and will work with the appropriate people to determine next steps.

While information must be provided to OPHD, responsible employees should not discuss the case with other people who do not have a legitimate need to know.

What to Expect Once You Have Filed a Report
If you provide contact information, an OPHD staff member will contact you to determine an appropriate response. If you choose to remain anonymous, the university will follow up on the incident as reasonably feasible, based on the information provided.

Resources
Learn more about the definitions of bias, harassment, and discrimination
Support/resources
Relevant policies

UCSDH Pharmacy Residents also have access to the **UCSD Ombuds Office (Non-reporting office offering confidential services)**

The UC San Diego Office of the Ombuds provides confidential, neutral, and informal dispute resolution services for the UC San Diego community.

We are available to assist faculty, staff, students, non-Senate academics, postdoctoral trainees, and employees of UC San Diego Health System (UC San Diego Medical Center and related facilities) who seek guidance with the resolution of academic or administrative issues and disputes. Its services supplement, but do not replace, other administrative processes at the University.

We work to facilitate communication and assist parties in reaching mutually acceptable agreements in order to find fair and equitable resolutions to concerns that arise at the university.

Without disclosing confidential communications, we report general trends of issues and provide feedback throughout the organization, and advocates systems change when appropriate.

The ombuds office functions independently with respect to case handling and issue management and reports to Ethics and Compliance in the Chancellor's office for administrative and budgetary purposes but not regarding the substance of matters discussed in the office. Its services supplement other administrative processes and formal grievance procedures available at the University. When providing services, the ombuds staff adheres to The International Ombudsman Association Code of Ethics and Standards of Practice which may be found on our website.

To make an appointment, please call 858-534-0777.

Educational Environment Conducive to Open Exchange of Ideas

UC San Diego Health assures an educational environment in which pharmacy residents may raise and resolve issues without fear of intimidation or retaliation by administration, faculty and/or staff through the following organizational system.

Members of the pharmacy residency program may bring forward issues regarding their working environment and their educational programs in a confidential and protected manner at any time to the RPD, RAC, or Chief Pharmacy Officer.

Pharmacy residents are also encouraged to discuss issues that require attention or resolution regarding their educational experience with their Chief Pharmacy residents, RPDs and with the Chief Pharmacy Officer.

Duty Hours and Working Environment Policy

UCSDH follows the duty hour policy set forth by ASHP. The A*SHP Duty Hour Requirements for Pharmacy Residency Programs* must be followed by the program and the residents. See ASHP website for complete duty hour definitions and requirements: ASHP Duty Hour Requirements for Pharmacy Residencies. (https://www.ashp.org/-/media/assets/professional-development/residencies/docs/duty-hour-requirements.pdf

Moonlighting is defined as any voluntary, compensated, work performed outside the organization (external), or within the organization where the pharmacy resident is in training (internal). These are compensated hours beyond the resident's salary and are not part of the scheduled duty periods of the residency program. External and internal moonlighting by pharmacy residents is not allowed.

Residents are required to complete the Duty hour Attestation monthly in PharmAcademic. The RPD will review pharmacy resident attestations to monitor compliance with duty hour requirements. Any instance of non-compliance will be addressed by the RPD and an action plan to prevent future instances will be developed.

If the pharmacy resident is found non-compliant of Duty Hour Requirements:

1. First Violation:
    - Resident will receive a verbal warning and counseling from the RPD.
    - The resident will meet with the RPD and preceptor to review contributing factors.
    - The RPD will review the duty hour standards and reinforce expectations.
2. Second Violation:
    - A written warning will be issued to the resident.
    - The resident will meet with the RPD and preceptor to review contributing factors.
    - The RPD will review the duty hour standards and reinforce expectations.
    - The resident may be placed on a performance improvement plan (see Appendix Q)

Supervisory Back-Up
Appropriate preceptor/faculty and/or supervisory pharmacy resident backup will be provided for every pharmacy resident for consultation, education and supervision.

Pharmacy Resident Fatigue
Faculty, staff, and pharmacy residents shall be educated to recognize the signs of fatigue and to utilize alertness management and fatigue mitigation strategies. Pharmacy residents not fit for duty will be sent home by their preceptor, manager, or RPD, as appropriate.

Working Environment
Pharmacy residents are provided with a safe and secure working environment with adequate desk space, appropriate technology and equipment, and bathroom facilities. Security Services staff provides escorts to UCSDH locations 24 hours a day/7 day a week. To request an escort at Hillcrest or La Jolla, call security at 619-543-3762 select option "2" or call the operator at 858-657-7000. If you do not wish to use our escort service but are walking to your vehicle or to a UCSDH location after hours, please consider using the "buddy system" and walk with another person.

Leave Policy

Holidays
The health system provides paid time off for holidays for eligible employees. To find the dates that they will be observed, please visit Holidays. (https://blink.ucsd.edu/HR/benefits/time-off/holidays.html)

- A pharmacy resident may observe a special or religious holiday, provided that the work schedule permits and provided that the time off is charged to vacation or is without pay
- Holiday staffing shall be assigned by the RPD, or designee and the following may be considered: continuity of patient care, opportunity for unique educational experience, supervision or education of others or other special requirements of the pharmacy resident's particular level of training, licensing restrictions
- Pharmacy resident holiday pay is incorporated into their yearly stipend
- PGY1 pharmacy residents work one holiday weekend that spans four or five days (depending on the calendar day that the holiday falls on that year) and two-holiday weekends that span three days.
- PGY2 pharmacy residents work one holiday weekend that usually spans four or five days (depending on the calendar day that the holiday falls on that year) and one holiday weekend that spans three days.

Time Away
Pharmacy resident time away (leave) from the program will not exceed 37 days over the course of the residency appointment year despite the time accrued exceeding 37 days. A total of 10 days of leave are applied for paid holidays for PGY1 pharmacy residents, resulting in the remaining 27 days of leave allowable, which includes vacation time, sick time, holiday time, religious time, interview time, personal time, jury duty time, bereavement leave, military leave, parental leave, leave of absence, extended leave, professional or education leave; a total of 11 days of leave are applied for paid holidays for PGY2 pharmacy residents, resulting in 26 days of leave allowable, which includes vacation time, sick time, holiday time, religious time, interview time, personal time, jury duty time, bereavement leave, military leave, parental leave, leave of absence, and extended leave.

Vacation
- Pharmacy residents accrue vacation based on multiple factors including number of eligible hours in the quatre-weekly (every four weeks) cycle for a total of 13 accrual cycles in a year, policy or bargaining contract, and years of qualifying UC employment. For pharmacy residents, this amounts to up to 15 vacation days annually
- Vacation leave is applied to scheduled workdays on weekdays only; holidays and weekends are not eligible for vacation requests
- Pharmacy residents cannot use vacation time until it is accrued
- Unused, earned vacation time will be paid out to the pharmacy resident at the end of the residency year
- Vacation leave shall be requested by the pharmacy resident in writing
- Vacation may be scheduled and granted in full or in part depending upon the requirements and needs of the training program, department staffing, code coverage and teaching
- To the extent allowed by the training requirements of the program, vacation leave will be granted in accordance with the pharmacy resident's requests
- Changes in the leave schedule may be initiated by the RPD when required by department activities or needs; the RPD shall endeavor to give advance notice of any change
- Pharmacy residents wishing to make a change in the posted leave schedule must submit a written request; approval of such requests is subject to the staffing requirements of the residency program, the department and the discretion of the RPD or designee and the learning experience preceptor
- Minimum attendance of 80% days on any block learning experiences is required for pharmacy residents (PGY1 and PGY2), unless noted at the discretion of the RPD for special circumstances
- Make-up time may be required to meet the educational objectives and certification requirements of the residency program
- A maximum of one missed session per 3-month longitudinal half-day learning experience and two missed sessions per 6-month longitudinal half-day learning experience is allowed
- Leave must be taken during the period of appointment
- Vacation during the last two weeks of the appointment year is permitted only if all completion requirements have been successfully completed and at the discretion of the RPD

Professional/Educational Leave

- With the approval of the RPD, pharmacy residents may be granted up to ten days of paid professional leave to assist in recruitment efforts or to pursue scholarly activities pursuant to their education curriculum
- If additional time off beyond ten days is necessary to support recruitment efforts or scholarly activity, pharmacy residents must submit vacation requests as noted above
- Time not taken may not be carried over from one appointment to another (PGY1 to PGY2; pharmacy resident to staff pharmacist) and will be forfeited

Sick Leave

- Pharmacy residents accrue sick time based on multiple factors including number of eligible hours in the quatre-weekly (every four weeks) cycle for a total of 13 accrual cycles in a year and policy or bargaining contract. For pharmacy residents, this amounts to up to 12 sick days annually
- Pharmacy Residents cannot use sick time until it is accrued
- Requests of sick time without compensatory leave, sick hours or vacation hours will be recorded as leave without pay and updated on the respective timecard(s).
- Unused, earned sick time may not be carried over from one appointment to another (PGY1 to PGY2; pharmacy resident to staff pharmacist). Further discussion with Human Resources may be warranted.
- The pharmacy resident will notify his/her RPD, learning experience preceptor and/or the staffing shift supervisor (if applicable) prior to the start of the learning experience or staffing shift; notification after the start of a shift may be considered an unexcused absence and subject to disciplinary action
- The pharmacy resident must provide the RPD with physician records to document illnesses lasting three or more days
- The pharmacy resident must provide the RPD with physician records to document illnesses that necessitates the pharmacy resident missing any of the Therapeutics Conference longitudinal learning experience
- The pharmacy resident must provide the RPD with physician records to document illnesses that necessitates the pharmacy resident missing more than 1 session per 3-month longitudinal learning experience or 2 sessions per 6-month longitudinal learning experience
- Sick leave is not to be used as vacation
- Pharmacy residents may use up to five days of sick leave, if accrued, for bereavement
  Make-up time may be required to meet the educational objectives and certification requirements of the training program

Non-standard Leave

Eligibility for Non-Standard Leave for other purposes will be in compliance with policies laid out in UCOP PPSM 2.210. (https://policy.ucop.edu/manuals/personnel-policies-for-staff-members.html) This may include religious time, personal time, jury duty time, military leave, parental leave, leave of absence, etc. Make-up time may be required to meet the educational objectives and certification requirements of the program.

Program Extensions

If the pharmacy resident fails to successfully complete a learning experience, they may be allotted a maximum extension of 5 weeks (up to 35 calendar days, scheduling will be in compliance with ASHP's Duty Hours) with no interruption in salary or benefits. This will NOT include project deliverables such as research manuscript, presentations, etc.

Pharmacy residents are not permitted extensions for taking standard leave in excess of the allotted time as outlined in the "Time Away" section. Leave balances will be tracked and reviewed with pharmacy residents on a quarterly basis. Use of more than 37 days will result in not receiving residency certificates.

Non-standard leave that results in time away beyond the allowable time requires an extension beyond the appointment term equal to the time missed and/or time need to achieve required competencies. UCSDH will adhere to all applicable state and federal regulations regarding protected leave. The maximum allowable extension, salary and benefits under such circumstances will be determined in accordance with these governing regulations.

Appendix A: PGY1 Pharmacy Residency Program in Acute Care Setting Overview (92350)

National Matching Service Number: **176413**

The UC San Diego Health, Department of Pharmacy (UCSDH) offers a one-year pharmacy residency beginning with the pay period closest to July 1st of the residency year. Of note, UCSDH maintains full and complete control over residency program operations, curricula, and staffing.

Scope:

UC San Diego Health consists of three acute care hospitals (UC San Diego Medical Center in Hillcrest, Sulpizio Cardiovascular Center, and Jacobs Medical Center which includes Thornton Hospital and Moores Cancer Center) and associated outpatient clinics. UCSDH is also affiliated with Rady Children's Hospital-San Diego, the Veterans Affairs San Diego Healthcare System, and the Sharp Memorial Hospital Joint Blood and Marrow Transplant Program. The Department of Pharmacy provides clinical services in the inpatient and outpatient settings to a broad spectrum of patient populations including, but not limited to, internal medicine, family medicine, surgery, cardiology, oncology, solid organ transplant, bone marrow transplant, infectious diseases, HIV/AIDS and ICU services in the surgical, medical, burn, neonatal, cardiovascular and neuro critical care specialty areas.

This pharmacy residency takes place in the acute care setting and focuses on direct, multidisciplinary patient care in the acute care setting with elective opportunities available in the inpatient and outpatient settings. Residents receive training in research and teaching/precepting and the program is tailored to the individual's needs and interests. Residents gain experience in the therapeutic management of patients with an emphasis in providing excellent pharmaceutical care in conjunction with the multidisciplinary team.

Purpose

PGY1 residency programs build upon Doctor of Pharmacy (PharmD) education and outcomes to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives. Residents who successfully complete PGY1 residency programs will be skilled in diverse patient care, practice management, leadership, and education, and be prepared to provide patient care, seek board certification in pharmacotherapy (i.e., BCPS), and pursue advanced education and training opportunities including postgraduate year two (PGY2) residencies.

Program Description

UCSDH is a teaching hospital which provides the unique opportunity to engage each of our residents in direct patient care activities, research, administration, project management, and teaching. Our PGY1 Residency Program provides a comprehensive foundation, equipping trainees with extensive experience across all facets of the medication use process. This prepares residents to excel in research, education, and patient care. Residents will be encouraged and trained to take ownership of patient care outcomes as they provide evidence-based contributions and recommendations to a multidisciplinary team.

Residents completing the UCSDH Pharmacy Residency (92350) will be competent in the management of medication therapy for various disease states in a variety of health care settings and for diverse patient populations, primarily in the acute care environment. Residents will benefit from a variety of learning experiences in the inpatient and ambulatory care settings with the majority of their training in the acute care setting, including medicine, critical care and several elective opportunities. The integration of staffing and clinical services prepares residents for practice in their future jobs by emphasizing the development of essential skills required for an acute care practitioner, including independent practice skills, multi-tasking and prioritization.

Residents will also gain expertise in teaching via completion of the Teaching Certificate Program. They will demonstrate proficiency in communication, education, and the ability to educate healthcare professionals, patients, and students on medication-related topics. Opportunities for precepting students during rotations, OSCEs, and Therapeutics conferences will further hone their teaching and mentoring skills. Residents will also be involved in a longitudinal residency project. Scientific writing is strongly emphasized and the preparation of a manuscript suitable for publication will be required.

Throughout the program, residents will develop professional maturity by consistently evaluating and refining their own performance. They will gain experience in research methodologies and leadership, preparing them for a wide range of post-residency opportunities. Graduates will be well-prepared for adjunct faculty roles, direct patient care positions, advanced PGY2 residencies, and eligibility for board certification as pharmacotherapy specialists. Pharmacy residents completing this program will be proficient in the areas of:

1. Patient care

2. Practice advancement
3. Leadership
4. Teaching and education

Number of residency positions available: 12

Stipend and Benefits: Refer to UC San Diego Health Pharmacy Residency website (https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/) for details on salary and benefits.

Candidate Eligibility Requirements:
The UC San Diego Health PGY1 Pharmacy residency program participates in the PhORCAS online application process. Eligible candidates must apply through PhORCAS, completing all sections and **must meet the following requirements**:

1. Graduate or candidate for graduation of an Accreditation Council for Pharmacy Education (ACPE) accredited PharmD degree program (or one in the candidate process), or have a Foreign Pharmacy Graduate Equivalency Committee (FPGEC) certificate from the National Association of Boards of Pharmacy (NABP)
2. Must be a United States Citizen or a Permanent Resident
3. Licensed or eligible for licensure as a pharmacist in the state of California
    a. Obtain California pharmacy intern license prior to beginning of the residency appointment; offer may be rescinded if the resident does not have a California pharmacy intern license prior to start of the appointment year
    b. Obtain California pharmacist license within 120 days of the start of the residency program; failure to be a licensed pharmacist in California within 120 days of the start date of the residency will result in dismissal from the residency program
4. Upon hire by UCSDH, along with any other requirements by UCSDH Human Resources:
    a. Provide proof of United States citizenship or permanent residence (Green Card)
    b. Complete a full verification and criminal background screen
    c. Attend new employee orientation (NEO)

The UCSDH PGY1 residency program participates in the ASHP Resident Matching Program. All applicants must be enrolled in the Resident Matching Program. To facilitate this enrollment process and for further information, please visit the following website: www.natmatch.com/ashprmp

Application:
Applications for the next resident class will be accepted upon activation of the PhORCAS system, typically in November. Deadline for application is January 2nd or as directed by ASHP. Applications must be submitted through PhORCAS and include the following:

1. Current Curriculum Vitae with all completed and anticipated experiential rotations.
2. Pharmacy work experience. Please include the average hours worked per month.
3. Three electronic references, two of which must be from direct patient care rotation preceptors who can directly comment on your clinical practice skills
4. Official pharmacy school transcript
5. Supplemental Questions (see website)

All applicants will be evaluated and ranked according to specific criteria using established rubrics. Offers for an on-site or virtual final interview with the interview team may be made. Final interviews will be held during late January through February.

Selection:
The PGY1 Pharmacy Residency Program selects candidates for interviews based on their qualifications, preparedness, and demonstrated potential for success in the program. Clinical aptitude, communication skills as well as their ability to uphold the mission of the UCSDH Department of Pharmacy are considered in the selection process. The UCSDH PGY1 residency program participates in the PhORCAS electronic application process as well as the ASHP Resident Matching Program. Match results are binding.

Program Structure:
The minimum term of resident appointment is 52 weeks.

Required Learning Experiences
PGY1 residents will gain the skills necessary to function as the primary pharmacist during their required core learning experiences. During direct patient-care learning experiences the resident will be expected to handle all aspects of the pharmacotherapeutic management of patients in the patient populations being covered. The resident will be expected to build relationships with interdisciplinary teams in a variety of settings and work proactively with the nurses, physicians, and physician extenders to help address all aspects of patient care related to medications. Daily activities may include: working up patients, interpreting all pertinent laboratory test and procedural results, interviewing patients/caregivers regarding chief complaints and medication histories, reviewing and applying primary literature, recommending changes to patients' medication regimens, ordering and pharmacokinetically evaluating drug levels and labs, attending daily multidisciplinary rounds, collaborating with physicians and other health care providers to discuss optimal pharmacotherapy to achieve therapeutic goals, participating in patient education/consultation, transitions of care activities, participating in codes, and overseeing and directing P4 APPE (Advanced Pharmacy Practice Experience) pharmacy student activities. Residents will also gain experience in operational processes.

Elective Learning Experiences

There are a variety of elective experiences from which the resident can choose. The resident is allotted 3 elective learning experiences; typically 5 weeks in length. This will allow the resident the flexibility to tailor their experience to their areas of interest. There are also opportunities to develop new elective rotations or modify existing elective rotations in the inpatient or outpatient environment to meet the residents' needs and interests. At least 2 of the elective rotations must involve direct patient care.

The five-week block rotations may be extended to 6-7 weeks to account for blocks with multiple holidays, conferences and other pre-scheduled time away from the learning experience. Descriptions of each learning experience can be found in PharmAcademic.

Required Block Experiences	Typical Length
Orientation	3 weeks
Inpatient Staffing Training	5 weeks
Internal Medicine (La Jolla Campus)	5 weeks
Internal Medicine (Hillcrest Campus)	5 weeks
Ambulatory Care*	5 weeks
Administration concurrent with Medication Safety	5 weeks
Intensive Care Unit+	5 weeks

*A variety of learning experiences are available that would satisfy this requirement. Please see Learning Experiences table below.
+ A variety of learning experiences are available that would satisfy this requirement. Please see Learning Experiences table below.

Required Longitudinal Experiences	Typical Length
Inpatient Staffing^	17 weekends
Major project (research project)	Longitudinal year long
Teaching Certificate Program (TC)~	Longitudinal year long
Medication Use Evaluation (MUE) and Monograph	As needed over 52 weeks
Transitions of Care#	10 weeks

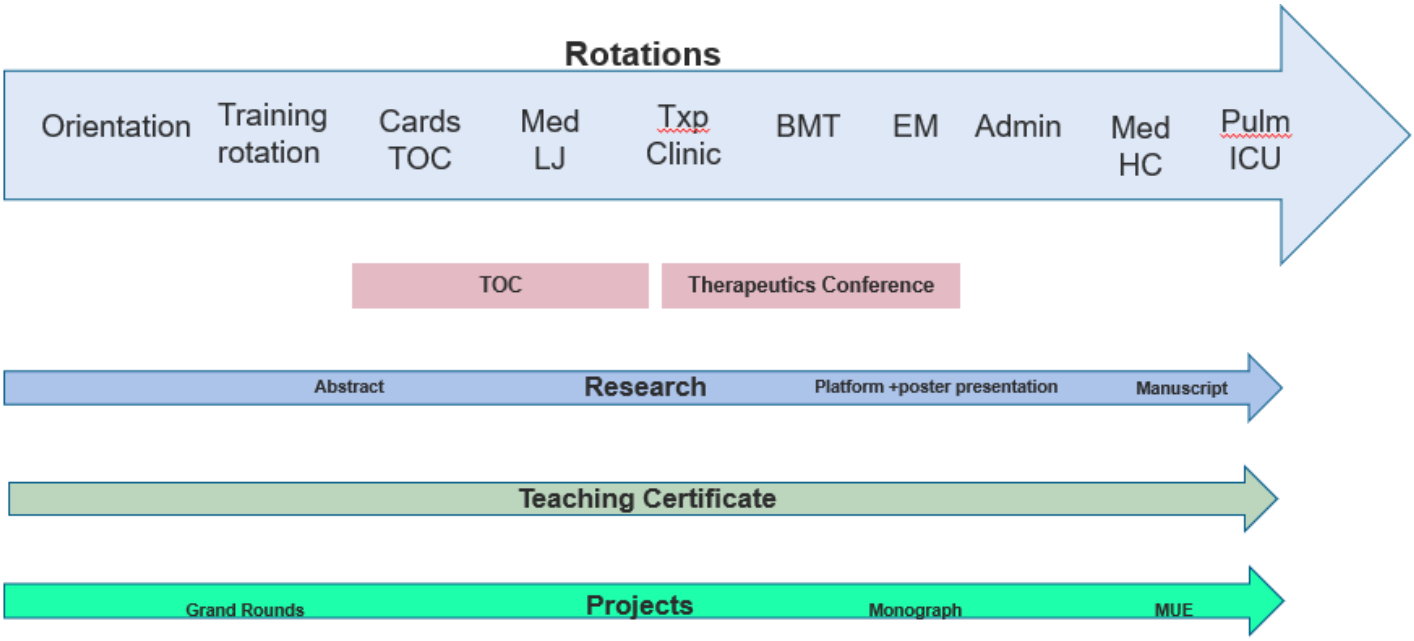
^ Inpatient Staffing takes place at our Hillcrest or La Jolla Campus and assigned shifts are a mix of operational and clinical. Shift hours are 8h vs 10 h depending on the shift assignment. An additional 4 week days of staffing will be assigned during Nov-January timeframe.

~ Refer to Appendix L for the minimum requirements to obtain the Teaching Certificate. Facilitating Therapeutics Conference for P3 students at Skaggs School of Pharmaceutical Science is part of the TC requirement and is ½ day on Wednesday afternoons for 10 weeks.
# Transitions of Care: Full day every other week.

Learning Experiences **Length: Typically 5 weeks**	
Abdominal Transplant, Inpatient	Medication Policy and Research Development
Abdominal Transplant Clinic*	Medication Safety
Administration	Neonatal Intensive Care Unit (NICU)
Advanced Teaching Experience	Neuro Critical Care
Anticoagulation Management Clinic *	Oncology, Inpatient
Antiretroviral Clinic*	Oncology Infusion Center*
Bone Marrow Transplant	Pharmacy Medication Access Clinic *
Burn Intensive Care Unit (BICU)+	Population Health*
Cardiothoracic Transplant, Inpatient	Primary Care Clinic*
Cardiothoracic Transplant Clinic*	Psychiatry, Inpatient
Cardiovascular Intensive Care Unit (CVICU)+	Pulmonary Arterial Hypertension Clinic*
Emergency Medicine	Specialty Medication Management*
Heart Failure Clinic*	Specialty Pharmacy
Infectious Disease	Sterile Compounding
Informatics	Surgical Intensive Care Unit (SICU)+
Internal Medicine- Hillcrest	Transitions of Care, Admin
Internal Medicine-La Jolla	Transitions of Care, Cardiology
Investigational Drug Services	Transitions of Care, Heart Failure
Medical/Pulmonary ICU, La Jolla+	Transitions of Care, HIV
Medical/Pulmonary ICU, Hillcrest+	

*Satisfies the Ambulatory Care Learning Experience Requirement
+ Satisfies the Intensive Care Unit Learning Experience Requirement

Example Schedule:



Staffing:

Staffing will be incorporated into the residency experience with weekend shifts that provide the opportunity for PGY1 residents to experience operations and clinical patient care in a variety of areas/shifts with the support of experienced staff pharmacists. PGY1 residents will staff 17 weekends which includes 2 minor holiday weekends and 1 major holiday weekend [Thanksgiving, Christmas, or New Years]. Additionally, 4 weekdays of staffing will be assigned during Nov-January timeframe. Missed staffing days due to any absence will be made up as arranged by the resident's staffing supervisor. The resident will work the aforementioned holidays (comp days given for holidays worked) and get the remainder of the UCSDH official paid holidays off.

Holidays:
Independence Day
Labor Day
Veterans Day
Thanksgiving Day
Friday after Thanksgiving
Winter Break (2 days; 12/25 and one more day, calendar dependent)
New Year's Eve (or equivalent)
New Year's Day
Martin Luther King Jr Day
Presidents' Day
Farmworkers Day (observed on the 4th Friday in March)
Memorial Day (last Monday in May)
Juneteenth National Independence Day

Vacation/Sick leave:
Residents accrue 12 sick days and 15 vacation days over the course of the residency year, in accordance with the UCSDH HR pharmacy resident job description and benefits. Additionally, residents receive 4-5 flexible compensatory days for holidays worked. Time away from the residency program will not exceed a combined total of 37 days during the 52-week training period.

Educational leave:
As part of their professional development learning experience, the resident receives ten days for professional education leave to attend meetings or conferences as assigned and to assist with recruitment efforts. Residents must use vacation time to participate in their own PGY2 interviews.

Project leave:
As part of their research and project learning experience, the resident receives ten days that will be used to work on UCSDH assigned projects.

Living Quarters:
There are no permanent living quarters at UCSDH for residents; residents are responsible for their own living arrangements as well as transportation to and from work/assignments.

Resident Project:
The resident will be responsible for conducting a major year-long research project. A list of project ideas will be generated from preceptors and the resident is expected to select a project during the first month of the residency year. The resident will participate in a Research Primer Course which has been developed by the UCSDH Research Council to support residents through the various aspects of the research process. Attendance, participation, and completion of the Research Primer Course is mandatory.

Assessment Strategy – PharmAcademic
The PGY1 Residency Program uses the ASHP on-line evaluation tool called PharmAcademic, which is required for all ASHP-accredited pharmacy residency programs. This system supports the ASHP Residency Standards, Competency Areas with corresponding Goals and Objectives.

Residents who are matched with this PGY1 program are entered into PharmAcademic prior to their arrival. The incoming resident completes a pre-residency questionnaire that helps the Residency Program Director (RPD) develop their Customized Development Plan and design a residency year that is tailored to the specific needs and interests of the resident:

- ASHP PGY1 Pharmacy Resident Entering Self-Assessment Form

Residents' schedules and assigned Goals and Objectives are entered into PharmAcademic. For each Learning experience, the following Assessments are assigned, and timely completion is required:

- Preceptor Assessment of Resident: Summative (for each Learning experience)
- Resident Assessment of the Learning Experience
- Resident assessment of Preceptor

Preceptors and residents are encouraged to exchange in on-going, daily verbal feedback throughout each rotation experience. Feedback may also be provided using the PharmAcademic Feedback option. The resident and Preceptors are trained and reminded throughout the year to complete evaluations in a thorough (quantitatively and qualitatively) and timely manner; feedback and constructive comments/suggestions are required. To this end, evaluations may be used, not only as assessment tools, but as tools that Preceptors may turn to for help in guiding Residents to improve, grow and achieve the residency program and the residents' goals and objectives for the residency year. Constructive feedback regarding preceptors and the learning experience submitted by the resident provides the basis for discussion at Residency Advisory Committee (RAC) meetings and drives program improvement. The RPD reviews all evaluations and may solicit verbal feedback from preceptors and residents to provide guidance to help the resident maximize the residency experience. Additional evaluations may be assigned.

The residents discuss their program goals and interests quarterly (Quarterly Development Plan Update) with the RPD to evaluate where they are in meeting the residency and resident's goals and to set or modify goals for the remaining months of the residency program based on the resident's needs and developing interests. Residents may choose to meet more often and as needed as their interests change throughout the year. The resident may request schedule modifications throughout the residency year and the RPD will make all efforts to accommodate these requests. Assessment tools will be adjusted as changes are made.

To help provide more formative feedback, residents are expected to seek feedback from at least one staff member each weekend they staff. The feedback will be solicited via an online survey; during the first half of the residency year feedback will be requested from pharmacists; during the second half of the year feedback may be requested from pharmacists, PGY2 residents and/or pharmacy technicians.

The Resident completes the ASHP PharmAcademic exit evaluation. Residents also are required to complete an evaluation of the Residency Program during the 4th quarter of the residency year. Recommendations for improvement will be discussed during a RAC meeting and action plans for incorporation of accepted recommendations and those with potential merit will be generated as part of ongoing quality improvement measures.

All evaluations must be completed within seven days of the assigned due date.

PGY1 Standards, Competency Areas, Goals and Objectives:

Competency Areas of the Residency Program are based on Standards of PGY1 residency programs outlined by the American Society of Health-System Pharmacy (ASHP). The following is the list of standards as stated by ASHP:

- **Standard 1: Recruitment and Selection of Residents** Standard 1 provides guidance to residency programs for the recruitment and selection of residents by defining candidate eligibility requirements along with the policies and procedures necessary to the recruitment process. The goal of the selection process is to ensure selected candidates will be successful in the training environment, attain professional competence, contribute to the advancement of profession of pharmacy, and support the organizations' mission and values.
- **Standard 2: Program Requirements and Policies** Standard 2 details the specific requirements for residency program policies; materials to be provided to candidates invited to interview; resident financial support and resources; and, requirements of ASHP Regulations on Accreditation of Pharmacy Residencies and ASHP Duty Hour Requirements for Pharmacy Residencies.
- **Standard 3: Structure, Design, and Conduct of the Residency Program** Standard 3 defines required components of program structure, design, and conduct. It is important that the program's structure and design enable residents to achieve the purpose of the residency program through skill development in the program's required competency areas. Requirements for oversight of residents' development, formative and summative evaluations, and self-assessment are defined.
- **Standard 4: Requirements of the Residency Program Director and Preceptors** Standard 4 defines eligibility and qualification requirements for residency program directors (RPDs) and preceptors as well as requirements for the program oversight, continuous program improvement, and preceptor development. RPDs and preceptors are critical to the success of both residents and the residency program and are the foundation of residency training. They serve as role models for residents through their professionalism and commitment to advancing the profession of pharmacy.
- **Standard 5: Pharmacy Services** Standard 5 serves as a guide to best practices across the continuum of pharmacy practice environments and focuses on the key elements of a well-managed department that are applicable to all practice environments. Each standard applies to all practice environments, unless otherwise indicated

ASHP Definitions

- Competency Area: Categories of the residency graduates' capabilities
  - Competency Area R1: Patient Care
  - Competency Area R2: Practice Advancement
  - Competency Area R3: Leadership
  - Competency Area R4: Teaching and Education
- Educational Goals (Goal): Broad statement of abilities
- Educational Objective: Observable, measurable statement describing what residents will be able to do as a result of participating in the residency program.
- Criteria: Examples that describe competent performance of educational objectives. Since the criteria are examples, they are not all required but are intended to be used to give feedback to residents on their progression and how residents can improve on the skills described in educational objectives when engaged in activities.

The competency areas of the Residency Program are based on the standards above and are specified by ASHP. Residents must have documentation that the competency areas were achieved by the end of the Residency Program. Failure to complete competency areas will result in failure to obtain the residency certificate.

For information about Competency Areas, Goals and Objectives as well as associated example criteria, please visit the following ASHP site: PGY1-Harmonized-CAGO-ASHP-BOD-Approved-April2024-Guidance-Update-Aug-2024

PGY1 Pharmacy Residency Completion Requirements:

Completion Requirements – Please check all that apply to the resident	
Learning Experiences/Staffing Requirements	
☒ Complete all evaluations in PharmAcademic	
☒ Successful completion of all learning experiences and a minimum of 90% of residency required objectives marked as Achieved for Residency (ACHR) with 100% marked as ACHR in Competency Area R1*	
☐ Disease state appendix	
☒ Staffing (17) weekends/year, 4 weekdays)	
☐ On-call (_____ weekends/year)	
Residency Project	
☒ Project Plan	☒ Platform Presentation at UC Collab conference or other as approved by RPD
☒ Abstract at UC Collab Conference or other as approved by RPD	☒ Final Manuscript
☒ Poster creation	☒ Qualtrics Resident Research Project closeout form
☒ Research Primer Course	☐ Other (please specify):
Leadership and Practice Management	
☒ M&M qty: 1	☐ Other (please specify):
☒ MUE (including project plan and write up) qty: 1	☐ Other (please specify):
☐ Orderset review - qty: _____	☐ Other (please specify):
☒ Monograph/Drug Class Review - qty:1	☐ Other (please specify):
☐ Committee(s) Participation (please specify):	☐ Other (please specify):
Teaching Certificate/Educational Requirements	
☒ Teaching Philosophy initial and final	☒ Grand Rounds qty: 1
☒ Small Group Teaching (minimum 5 for Teaching Certificate)	☒ Clinical Forum - qty: min 1
☒ Attend/Complete all required SDPRL assignments	☒ Journal Club - qty: min 1
☐ Didactic Lecture (please specify):_____	☒ RN in-service - qty: min 1
☒ SSPPS OSCE - qty: 1	☒ MD in-service - qty: min 1
☒ Teaching Certificate Program Conferences	☐ In-service to audience of choice - qty:_____
☐ Publication Submission	☒ Tech-talk - qty: 1
☐ Other (please specify):	☒ Teaching Opportunity (please specify): SSPPS Therapeutics Conference
☐ Other (please specify):	☐ Other (please specify):
	☐ Other (please specify):

*Successful completion is defined as all learning experience objectives marked satisfactory progress (SP), achieved (ACH) or achieved for residency (ACHR) by the final evaluation of the learning experience.

Appendix B: PGY1 Pharmacy Residency Program in Ambulatory Care Setting Overview (92048)

NMS Program Match Number: **162113**

https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/programs/ambulatory-care/

The UC San Diego Health (UCSDH), Department of Pharmacy offers a one-year pharmacy practice residency beginning on the last Monday of June each year. **UCSDH maintains full and complete control over residency program operations, curricula, and staffing.**

Scope:
UCSDH consists of three acute care hospitals (UC San Diego Medical Center in Hillcrest, Sulpizio Cardiovascular Center, and Jacobs Medical Center which includes Thornton Hospital and Moores Cancer Center) and associated outpatient clinics. UCSDH is also affiliated with Rady Children's Hospital-San Diego, the Veterans Affairs San Diego Healthcare System, and the Sharp Memorial Hospital Joint Blood and Marrow Transplant Program. The Department of Pharmacy provides clinical services in the inpatient and outpatient settings to a broad spectrum of patient populations including, but not limited to, internal medicine, family medicine, surgery, cardiology, oncology, solid organ transplant, bone marrow transplant, infectious diseases, HIV/AIDS and ICU services in the surgical, medical, burn, neonatal, cardiovascular and neuro critical care specialty areas.

This pharmacy practice residency focuses on direct patient care in the ambulatory care and transitional care environment, with elective opportunities available across the spectrum of care. Residents will also receive individually tailored training in research and teaching opportunities. Emphasis will be placed on providing evidence-based, optimized pharmaceutical care in conjunction with the multidisciplinary team. The resident will gain experience in the therapeutic management of patients in both primary care and specialty care outpatient settings, addressing chronic diseases including but not limited to diabetes, hypertension, and dyslipidemia, as well as transplant, anticoagulation disorders, HIV/AIDS and additional clinical specialty areas.

Program Purpose:
PGY1 residency programs build upon Doctor of Pharmacy (PharmD) education and outcomes to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives. Residents who successfully complete PGY1 residency programs will be skilled in diverse patient care, practice management, leadership, and education, and be prepared to provide patient care, seek board certification in pharmacotherapy (e.g., BCACP, BCPS), and pursue advanced education and training opportunities including postgraduate year two (PGY2) residencies.

Program Description:
The Pharmacy Residency Program in Ambulatory Care Setting is an accredited and comprehensive 12-month post-graduate training experience. The program provides training opportunities focused on direct patient care in the ambulatory and transitional environments, with a wide variety of electives available. Residents will also receive individually tailored training in research and teaching, with structured mentorship support. The residency program emphasizes the development of clinical decision-making skills, discharge and transitions-of-care pharmacy operations, research, precepting/teaching and leadership in pharmacy practice. Residents will work at the top of their license and be involved in direct patient care, chronic disease state management, patient education, drug therapy monitoring, and the implementation of evidence-based practices.

Residents will also gain expertise in teaching via completion of the Teaching Certificate Program. They will demonstrate proficiency in communication, education, and the ability to educate healthcare professionals, patients, and students on medication-related topics. Opportunities for precepting students during rotations, Objective Structured Clinical Exams (OSCEs), and student case conferences will further hone their teaching and mentoring skills. Residents will also be involved in a longitudinal residency project. Scientific writing is strongly emphasized and the preparation of a manuscript suitable for publication will be required.

Throughout the program, residents will develop professional maturity by consistently evaluating and refining their own performance. They will gain experience in research methodologies and leadership, preparing them for a wide range of

post-residency opportunities. Graduates will be well-prepared for adjunct faculty roles, direct patient care positions, advanced PGY2 residencies, and eligibility for board certification as pharmacotherapy specialists.

Pharmacy residents completing this program will be proficient in the areas of:

1) Patient care
2) Practice advancement
3) Leadership
4) Teaching and education

Number of residency positions available: 3

Stipend and Benefits:
Refer to the UC San Diego Health Pharmacy Residency website for details on salary and benefits:
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/

Vacation/Sick leave:
Residents accrue **12 sick days and 15 vacation days** over the course of the residency year, in accordance with UCSDH HR pharmacy resident job description and benefits. The resident receives **5 flexible compensatory days** at the beginning of the year for Holidays to be worked. Time away from the residency program will not exceed a combined total of 37 days per 52-week training period.

Educational leave:
As part of their professional development learning experience, the resident receives **ten (10) days for professional education leave** to attend meetings or conferences as assigned and to assist with recruitment efforts. Residents must use vacation time to participate in their own PGY2 interviews.

Project leave:
As part of their research and project learning experience, the resident receives **ten (10) days that will be used to work on UCSDH assigned projects**.

Living Quarters:
There are no permanent living quarters at UCSDH for residents; residents are responsible for their own living arrangements as well as transportation to and from work/assignments.

PGY1 Pharmacy Resident Eligibility Requirements:

1. Graduate or candidate for graduation of an Accreditation Council for Pharmacy Education (ACPE) accredited PharmD degree program (or one in the candidate process), or have a Foreign Pharmacy Graduate Equivalency Committee (FPGEC) certificate from the National Association of Boards of Pharmacy (NABP)
2. Must be a United States Citizen or a Permanent Resident
3. Licensed or eligible for licensure as a pharmacist in the state of California
    a. Obtain California pharmacy intern license prior to beginning of the residency appointment; offer may be rescinded if the resident does not have a California pharmacy intern license prior to start of the appointment year
    b. Obtain California pharmacist license within 120 days of the start of the residency program; failure to be a licensed pharmacist in California within 120 days of the start date of the residency will result in dismissal from the residency program
4. Upon hire by UCSDH, along with any other requirements by UCSDH Human Resources:
    a. Provide proof of United States citizenship or permanent residence (Green Card)
    b. Complete a full verification and criminal background screen
    c. Attend new employee orientation (NEO)

The UCSDH PGY1 residency program participates in the ASHP Resident Matching Program. All applicants must be enrolled in the Resident Matching Program. To facilitate this enrollment process and for further information, please visit the following website: www.natmatch.com/ashprmp

Application:
Applications for the next incoming resident class will be accepted upon activation of the Pharmacy Online Residency Centralized Application Service (PhORCAS) system. Deadline for application is January 2nd of each cycle. Applications should be submitted through PhORCAS and include the following:

1. Letter of intent addressing the following cues:
    a. **Reflect on your journey**: Share specific experiences, skills, and personal characteristics that have prepared you for success in our residency program. How have these elements shaped your approach to patient care and teamwork?
    b. **Outline your vision**: Describe your career aspirations and how they align with the goals and opportunities offered by our residency program. How do you envision this program helping you achieve your professional objectives?
    c. Current Curriculum Vitae
2. **Three** electronic letters of recommendation
3. Official pharmacy school transcript

Selection:
The Pharmacy Residency Program in Ambulatory Care Setting selects candidates for interviews based on their qualifications, preparedness, and demonstrated potential for success in the program. Clinical aptitude, communication skills, and the ability to uphold the mission and culture of the UCSDH Department of Pharmacy are considered in the selection process. The UCSDH PGY1 residency programs participate in the PhORCAS electronic application process as well as the ASHP Resident Matching Program. Match results are binding.

Pharmacist Intern License:
Matched residents must be ***licensed Pharmacist Interns*** in the State of California **prior to *the start of the residency training program.***

Start Date and Term:
The residency is expected to begin on the last Monday of June, or first Monday of July, depending on the Human Resources orientation schedule. The term will be for a period of 12 months per the offer letter.

Pharmacist License:
Matched residents must be successfully licensed as a pharmacist by the California Board of Pharmacy **within 120 days of the start date of the residency**; failure to be licensed within the specified time frame will result in dismissal from the residency program.

Program Structure:

The minimum term of resident appointment is 52 weeks.

Required Rotations:	**Duration:***
Orientation	3 weeks
Transitions of Care- Heart Failure	5 weeks
Ambulatory Care Administration	5 weeks
Primary Care I	5 weeks
Solid Organ Transplant Clinics	5 weeks
Anticoagulation Clinic	5 weeks
Owen Clinic	5 weeks
Community Clinic	12-week longitudinal (½ day weekly)
Ambulatory Care Operations- Transitions of Care	12-month longitudinal (10 total weekends)
Ambulatory Care Operations- Discharge Pharmacy	12-month longitudinal (10 total weekends)
Residency Project	12-month longitudinal
Teaching Certificate Program	12-month longitudinal
Professional Development	12-month longitudinal
Monograph	12-month longitudinal
Medication Use Evaluation (MUE)	12-month longitudinal
Grand Rounds	12-month longitudinal
Medication Safety**	12-month longitudinal
Block Electives (3)***	5 weeks
Longitudinal Electives (2)***	12 weeks (½ day weekly)

***Of note:** rotations may be extended at certain times of the year due to conferences, vacations, holidays, or other pre-scheduled time away from the learning experience

**Med Safety rotations will be longitudinal throughout the year; however, similar to the MUE/monograph, assignments will be timed so that residents have time to work on them during the admin rotation

***Note BOTH three (3) block electives AND two (2) longitudinal electives are available for residents to build into the schedule throughout the year

Descriptions of each learning experience can be found in **PharmAcademic.**

Required Rotations:

Residents in the Pharmacy Residency Program in Ambulatory Care Setting will develop the competencies required to serve as primary Ambulatory Care Pharmacists during their designated core rotations. Throughout direct patient care experiences, residents will be responsible for the comprehensive pharmacotherapeutic management of patients within the assigned populations. Residents are expected to cultivate strong collaborative relationships with interdisciplinary teams across diverse clinical settings. This includes proactive engagement with physicians, nurses, social workers, and other inter-disciplinary team members to ensure holistic, patient-centered care.

Typical responsibilities during ambulatory care rotations may include:

- Conducting pre-clinic patient reviews
- Interviewing patients to assess chief complaints and medication-related issues
- Collaborating with clinic preceptors to optimize care plans
- Adjusting medication regimens and ordering/interpreting laboratory tests
- Initiating specialty referrals as needed to meet therapeutic goals
- Participating in daily multidisciplinary rounds (e.g., Transitions of Care rotation)
- Managing patients across the continuum of care
- Providing patient education and consultation
- Supervising and mentoring P4 APPE pharmacy students

In addition to clinical responsibilities, residents will gain experience in operational pharmacy services, including discharge counseling and transitional care staffing. Longitudinal core rotations are integrated throughout the residency year to reinforce continuity of care and complement block rotations.

Elective Rotations:
Residents will select three (3) 5-week block electives AND two (2) ~12-week longitudinal electives (½ day weekly) from the list below. This will allow the resident the flexibility to tailor their experience to an area of interest. There are opportunities to develop new elective rotations or modify existing elective rotations in the inpatient or outpatient environment as desired by the resident. Residents may view and select electives from PGY1 Program 92350 (see Appendix A), many of which are in the acute care environment; however, priority will be granted to residents of PGY1 Program 92350 before approval and scheduling

Advanced Teaching Experience	Internal Medicine Clinic
Bone Marrow Transplant	Lung Transplant
Chronic Kidney Disease	Medication Safety
Cystic Fibrosis	Outpatient Oncology Clinic
Diabetes Management and Education Clinic	Outpatient Psychiatry
Dialysis	Pain and Palliative Care
Geriatrics Medicine	Pediatrics
Heart Failure Clinic	Pharmacy Medication Access Clinic (PMAC)
Hepatitis C Clinic	Population Health - Disease Management
HIV: Transitions of Care	Population Health - Utilization Management
Informatics	Primary Care II
Inpatient Cardiology	Primary Care MTM
Inpatient Psychiatry	Pulmonary Hypertension
Inpatient Transplant	Specialty Medication Management (SMM) Clinic
Internal Medicine - I	UCSD Health Specialty Pharmacy

Longitudinal Clinic Elective Experiences:
The resident will have two (2) 12-week longitudinal learning experiences, ½ day weekly, in which to participate throughout the year. Participation in the Community Clinic and Teaching Certificate Program Conferences are required.

Operations (Staffing):
Staffing will be incorporated into the residency experience with weekend shifts that provide the opportunity for PGY1 residents to cover patients followed by the transitions of care program, as well as learning the roles and responsibilities of pharmacists in the discharge pharmacy. The PGY1 residents will be required to staff 19 weekends, **which includes 2 minor holidays AND 1 major holiday** (Thanksgiving, Christmas, or New Year's). Ten (10) of the weekends will cover the Discharge Pharmacy/Transplant Discharge Education and nine (9) will cover the Transitions of Care program. The schedule will be designed during the orientation experience and in general should not be changed throughout the year; switching weekends is discouraged but may be considered under extenuating circumstances. Missed staffing days due to any absence will be made up as arranged by the resident's staffing supervisor. The resident will work the aforementioned holidays and get the remainder of the UCSDH official paid holidays off.

<u>UCSDH-recognized Holidays:</u>
Independence Day
Labor Day
Veterans Day
Thanksgiving Day
Friday after Thanksgiving
Winter Break (2 days; 12/25 and one more day, calendar dependent)
New Year's Eve (or equivalent)
New Year's Day
Martin Luther King Jr Day
Presidents' Day
Farmer's Day (observed on the 4th Friday in March)
Memorial Day (last Monday in May)
Juneteenth National Independence Day

Research Project:
The resident will be responsible for conducting a major year-long research project. A list of project ideas will be generated from preceptors, and the resident is expected to select a project during the first month of the residency year. The resident will participate in a Research Primer Course which has been developed by the UCSDH Research Council to support residents through various aspects of the research process. Attendance, participation and completion of the Research Primer Course is mandatory.

Publication:
The resident will be required to write a manuscript *suitable for publication* by the end of their residency year. The purpose of this requirement will be the development of scientific writing and communication skills. The types of publishable literature can include any of the following types of manuscripts:

- Case reports with a review of the literature
- Primary research/original research
- Meta-analysis of a disease state or therapy
- Review article

Teaching Certificate Program:
Residents participate in the San Diego Pharmacy Residency Leadership (SDPRL) Teaching Certificate Program which includes a seminar series attended with residents from other county-wide residency programs. Seminar topics will focus on teaching and preceptor development skills. Seminar attendance is mandatory and may include weekend programs. No absences will be allowed for seminar sessions unless pre-approved by the RPD and only under rare extenuating circumstances; make-up work is mandatory for any missed session. See Appendix L for further description of requirements.

Teaching Certificate Program Conferences
Residents will facilitate case presentations and/or topic discussions for P4 APPE pharmacy students, enhancing learning and assuring that the student provides an effective analysis of the case or topic focusing on the areas of clinical importance. Feedback on the resident's ability to demonstrate precepting skills will be incorporated into the longitudinal Teaching Certificate Program Learning Experience.

Assessment Strategy – PharmAcademic:
The Pharmacy Residency Program in Ambulatory Care Setting uses the ASHP on-line evaluation tool called PharmAcademic, which is required for all ASHP-accredited pharmacy residency programs. This system supports the evaluation of ASHP Residency Standards, Competency Areas and corresponding Goals and Objectives for all residents.

Residents who are matched with this PGY1 program are entered into PharmAcademic prior to their arrival. The incoming resident completes the ASHP PGY1 Pharmacy Resident Entering Self-Assessment Form that helps the Residency Program Director (RPD) develop their customized Resident Development Plan and design a residency year that is tailored to the specific needs and interests of the resident.

Residents' schedules and assigned Goals and Objectives are entered into PharmAcademic. For each Learning experience, the following Assessments are assigned, and timely completion is required:

- Preceptor Assessment of Resident: Summative (for each Learning experience)
- Resident Assessment of the Learning Experience
- Resident assessment of Preceptor

Preceptors and residents are encouraged to exchange in on-going, daily verbal feedback throughout each rotation experience. Feedback may also be provided using the PharmAcademic Feedback option. The resident and Preceptors are trained and reminded throughout the year to complete evaluations in a thorough (quantitatively and qualitatively) and timely manner; feedback and constructive comments/suggestions are required. To this end, evaluations may be used, not only as assessment tools, but as tools that Preceptors may turn to for help in guiding Residents to improve, grow and achieve the residency program and the residents' goals and objectives for the residency year. Constructive feedback regarding preceptors and the learning experience submitted by the resident provides the basis for discussion at Residency Advisory Committee (RAC) meetings and drives program improvement. The RPD reviews all evaluations and may solicit verbal feedback from preceptors and residents to provide guidance to help the resident maximize the residency experience. Additional evaluations may be assigned.

The residents discuss their program goals and interests quarterly (Quarterly Development Plan Update) with the RPD to evaluate where they are in meeting the residency and resident's goals and to set or modify goals for the remaining months of the residency program based on the resident's needs and developing interests. Residents may choose to meet more often and as needed as their interests change throughout the year. The resident may request schedule modifications throughout the residency year and the RPD will make all efforts to accommodate these requests. Assessment tools will be adjusted as changes are made.

The Resident completes the ASHP PharmAcademic exit evaluation. Residents also are required to complete an evaluation of the Residency Program during the 4th quarter of the residency year. Recommendations for improvement will be discussed during the RAC meeting and action plans for incorporation of accepted recommendations and those with potential merit will be generated as part of ongoing quality improvement measures.

All evaluations must be completed within seven days of the assigned due date.

PGY1 Standards, Competency Areas, Goals and Objectives:
Competency Areas of the Residency Program are based on Standards of PGY1 residency programs outlined by the American Society of Health-System Pharmacy (ASHP). The following is the list of standards as stated by ASHP:

- **Standard 1: Recruitment and Selection of Residents**
  Standard 1 provides guidance to residency programs for the recruitment and selection of residents by defining candidate eligibility requirements along with the policies and procedures necessary to the recruitment process. The goal of the selection process is to ensure selected candidates will be successful in the training environment, attain professional competence, contribute to the advancement of profession of pharmacy, and support the organizations' mission and values.
- **Standard 2: Program Requirements and Policies**
  Standard 2 details the specific requirements for residency program policies; materials to be provided to candidates invited to interview; resident financial support and resources; and requirements of ASHP Regulations on Accreditation of Pharmacy Residencies and ASHP Duty Hour Requirements for Pharmacy Residencies.
- **Standard 3: Structure, Design, and Conduct of the Residency Program**
  Standard 3 defines required components of program structure, design, and conduct. It is important that the program's structure and design enable residents to achieve the purpose of the residency program through skill development in the program's required competency areas. Requirements for oversight of residents' development, formative and summative evaluations, and self-assessment are defined.
- **Standard 4: Requirements of the Residency Program Director and Preceptors**
  Standard 4 defines eligibility and qualification requirements for residency program directors (RPDs) and preceptors as well as requirements for program oversight, continuous program improvement, and preceptor development. RPDs and preceptors are critical to the success of both residents and the residency program and are the foundation of residency training. They serve as role models for residents through their professionalism and commitment to advancing the profession of pharmacy.
- **Standard 5: Pharmacy Services**
  Standard 5 serves as a guide to best practices across the continuum of pharmacy practice environments and focuses on the key elements of a well-managed department that are applicable to all practice environments. Each standard applies to all practice environments, unless otherwise indicated.

ASHP Definitions:

- *Competency Area*: Categories of the residency graduates' capabilities
  - Competency Area R1: Patient Care
  - Competency Area R2: Practice Advancement
  - Competency Area R3: Leadership
  - Competency Area R4: Teaching and Education
- *Educational Goals (Goal):* Broad statement of abilities
- *Educational Objective:* Observable, measurable statement describing what residents will be able to do as a result of participating in the residency program.
- *Criteria*: Examples that describe competent performance of educational objectives. Since the criteria are examples, they are not all required but are intended to be used to give feedback to residents on their progression and how residents can improve on the skills described in educational objectives when engaged in activities.

The competency areas of the Residency Program are based on the standards above and are specified by ASHP. Residents must have documentation that the competency areas were achieved by the end of the Residency Program. Failure to complete competency areas will result in failure to obtain the residency certificate.

For information about Competency Areas, Goals and Objectives as well as associated example criteria, please visit the following ASHP site: PGY1-Harmonized-CAGO-ASHP-BOD-Approved-April2024-Guidance-Update-Aug-2024

The Pharmacy Residency Program in Ambulatory Care Setting Requirements for Conferring Certificate:

Completion Requirements (Check all that apply to resident)	
Learning Experiences/Staffing Requirements	
☑ Complete all evaluations in PharmAcademic	
☑ Successful completion of all learning experiences and a minimum of 90% of residency required objectives marked as Achieved for Residency (ACHR) with 100% marked as ACHR in Competency Area R1*	
☐ Disease state appendix	
☑ Staffing (19 weekends/year)	
☐ On-call (_____ weekends/year)	
Residency Project	
☑ Abstract at UC Pharmacy Conference	☑ Platform Presentation at UC Pharm Conf
☑ Poster at GME Poster Session	☑ Final Manuscript
☑ Research Primer Course	☑ Qualtrics Resident Research Project closeout form
Leadership and Practice Management	
☑ M&M - qty: 1	☐ Other (please specify):
☑ MUE - qty: 1	☐ Other (please specify):
☐ Orderset review - qty:	☐ Other (please specify):
☑ Monograph/Drug Class Review - qty: 1	
☐ Committee(s) Participation (please specify):	
Teaching Certificate/Educational Requirements	
☑ Teaching Philosophy initial and final	☑ Grand Rounds
☑ Small Group Teaching (minimum 5 for Teaching Certificate)	☐ Clinical Forum - qty:
	☑ Journal Club - qty: 1
☑ Attend/Complete all required SDPRL assignments	☑ RN in-service - qty: 1
☐ Didactic Lecture (please specify):	☑ MD in-service - qty: 1
☑ SSPPS OSCE - qty: 1	☐ In-service to audience of choice - qty:
☑ Teaching Certificate Program Conferences	☑ Tech-talk - qty: 1
☐ Publication Submission	☐ Teaching Opportunity (please specify):
☐ Other (please specify):	☐ Other (please specify):
☐ Other (please specify):	☐ Other (please specify):

*Successful completion is defined as all learning experience objectives marked satisfactory progress (SP), achieved (ACH) or achieved for residency (ACHR) by the final evaluation of the learning experience.

In compliance with the ASHP Residency Accreditation Standard, the Residency Manual was reviewed with me during orientation and is within 14 days from the start of the residency. I understand that the finalized Residency Manual for this year may be updated according to resident/preceptor feedback, health system policy changes, or accreditation standard updates. I have read and understand the contents of the Residency Manual and all program requirements. I understand that to successfully close out my residency and receive my Certificate of Completion all outstanding projects as it relates to the list above must be signed off by the end of residency.

Resident signature for acknowledgement:	**Date:**

Upon completion, RPD will attest below.

Residency Program Director Signature:	**Date**:

Appendix C: Cardiology

PGY2 Cardiology Pharmacy Residency Program Overview
National Matching Service Code: **731567**
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/programs/cardiology/

The UC San Diego Health Department of Pharmacy offers a one-year specialty residency in cardiology pharmacy practice beginning either the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule and upon licensure in California (see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Scope:
UC San Diego Health (UCSDH) consists of three acute care hospitals (UC San Diego Medical Center in Hillcrest; the La Jolla Campus consisting of Jacobs Medical Center, Sulpizio Cardiovascular Center, and Thornton Hospital; and East Campus) and associated outpatient clinics and infusion centers. UCSDH is also affiliated with Rady Children's Hospital-San Diego, the Veterans Affairs San Diego Healthcare System, and the Sharp Memorial Hospital Joint Blood and Marrow Transplant Program. UCSDH is affiliated with the UC San Diego School of Medicine and the UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS). The Department of Pharmacy provides clinical services in both the inpatient and outpatient setting to a broad spectrum of patient populations including internal medicine, surgery, cardiology, oncology, solid organ transplant, bone marrow transplant, infectious diseases, nephrology, cystic fibrosis, pulmonary hypertension and HIV/AIDS.

This specialty residency will allow for the resident's growth as the pharmacist providing direct patient care to patients with cardiology-related disease states in both the inpatient and ambulatory care settings. The program also offers a wide variety of electives in specialized services throughout UCSDH. There are many research and teaching opportunities that can be tailored to the resident's interests.

Program Purpose:
PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions, and board certification in the advanced practice area, if available.

Program Description:
UCSDH is a university-affiliated teaching hospital which provides the unique capability to engage each of our residents in direct patient care activities, research, administration and project management, and teaching. PGY2 Cardiology Pharmacy residents will gain the skills necessary to function as the primary cardiology pharmacist during their required inpatient learning experiences, with the expectation that the resident will manage all aspects of the medication process during the patient's hospitalization. Other learning experiences will be required to broaden the resident's experiences and scope of practice by expanding on their ability to care for patients with advanced cardiac disease states (including patients on the advanced heart failure, heart transplant, and cardiothoracic surgery services) in the inpatient and outpatient settings.

Primary clinical responsibilities will include rounding with assigned teams, validating pharmacy orders, performing pharmacokinetic monitoring, as well as designing, recommending, monitoring, and evaluating patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine. When opportunities are available, the resident will also be expected to assume oversight and responsibility for pharmacy trainees (including fourth-year pharmacy students and PGY1 pharmacy residents). Additionally, residents will assume responsibility for all medication management activities for their service, including transitions between different areas or levels of care. The resident will become proficient at resolving medication system issues when appropriate to ensure safe transition to community pharmacies and providers. The resident will also become skilled in providing education to multiple audiences: patients, caregivers, providers, and other members of the multidisciplinary health care team.

Teaching activities may include presentations (grand rounds, clinical forums, journal clubs, topic discussions, etc.), involvement with UC San Diego SSPPS courses (e.g. conference leader for therapeutics course), and clerkship preceptorship of PGY1 pharmacy practice residents and fourth-year pharmacy students on clinical rotations. The ability to work independently and to supervise pharmacy students and residents will be emphasized. The resident will also be involved in a research project where scientific writing is strongly emphasized, and the preparation of a manuscript suitable for publication will be expected.

Number of residency positions available: 1

Resident Pay and Benefits: Refer to UC San Diego Health Pharmacy Residency website (https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/) for details on salary and benefits

Requirements of Residents Prior to Starting the Program:
(see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here))

Application:
Each year, the RPD will determine if UCSDH will participate in early commitment and/or go through the nationwide resident matching program. If RPD selects to early commit, UC SWEC PGY2 Residency Program Policy and Procedures will be followed (see Appendix P).

Applications for ASHP Match should include the following:
All applicants must be enrolled in the Resident Matching Program. To facilitate this enrollment process and for further information, please visit the following website: http://www.natmatch.com/ashprmp. Applications will be accepted when PhORCAS opens and are due by January 2nd.

1. Letter of intent that addresses your vision of a cardiology pharmacist practicing at the top of their license and your own personal goals
2. Current *Curriculum Vitae* with all completed/anticipated rotations from both pharmacy school and residency and all pharmacy work experience
3. Three electronic references are required from preceptors who can directly comment on your clinical and practice skills
    a. **Note**: Please have recommendation writers complete the electronic reference form within PhORCAS with detailed characteristic and narrative comments. One to two areas of improvement or constructive feedback that the recommender feels the candidate should continue to work on as a PGY2 resident should be identified. A separate letter of recommendation is not required.
4. Letter of endorsement from PGY1 Residency Program Director (if RPD is not one of the three preceptor references listed above)

Interviews will be held during late January and throughout February.

Program Structure:

- Orientation and Training (2-4 weeks, duration determined by the resident's previous experience)
- Required Learning Experiences
    - General Cardiology, Hillcrest (4 weeks)
    - General Cardiology, La Jolla (4 weeks)
    - Advanced Heart Failure (5 weeks)
    - Cardiothoracic Transplant – Heart (5 weeks)
    - Cardiovascular Intensive Care Unit (ICU) (5 weeks)
    - Heart Failure Clinic (4 weeks)
    - Administration (4 weeks)
- Elective Learning Experiences
    - 3 elective blocks – see full list below (4 weeks each)
- Longitudinal Learning Experiences (longitudinal, 10 weeks)
    - UCSD SSPPS Therapeutics Conference (half-day per week)
- Staffing (longitudinal, 16 weekends over 52 weeks)

    - Inpatient operations/clinical verification (10 weekends, including 1 major holiday)
    - Transitions of care (6 weekends, including 1 minor holiday)
    - Staffing shifts are 8 hours or 10 hours per shift depending on the shift assignment
- Residency Research Project (longitudinal, 52 weeks)
    - Includes participation in Research Primer Series
    - Research time will be distributed throughout the residency year
- Practice Management and Education (longitudinal, 52 weeks)
    - Committee Participation
        - UCSDH Medication Error Reduction Plan (MERP) Committee (meets monthly)
    - Practice Management/Quality Improvement
        - Medication use evaluation (MUE)
        - Order set review or guideline/protocol update
        - Formulary monograph or drug class review
    - Effective Education
        - Grand Rounds (1 required)
        - Clinical Forum presentations (2 required)
        - Journal Club presentations (5 required)
        - In-service presentations (1 nursing and 1 provider)
    - Cardiology Appendix

Required Learning Experiences:
Descriptions of each learning experience can be found in PharmAcademic.

PGY2 residents will gain the skills necessary to function as the primary cardiology pharmacist during their required learning experiences and as the primary pharmacist during their elective learning experiences. The resident will also be expected to handle all aspects of medication management from admission through discharge (and beyond when applicable). The resident will be expected to build relationships with each interdisciplinary team in a variety of settings and to work proactively with nurses, case managers, social workers, physicians, and physician extenders to help manage patients during hospital admission and to plan for discharge. Daily activities will include attending daily multidisciplinary rounds, managing patients across the continuum of care, performing medication reconciliation at both admission and discharge, collaborating with physicians and other health care providers to discuss optimal pharmacotherapy, participating in patient education/consultation, performing pharmacokinetic monitoring on all therapeutically monitored drugs, and overseeing and directing PGY1 resident and pharmacy student activities. This integration of staffing and clinical services prepares residents for any type of practice environment they may encounter in their future jobs by emphasizing the development of essential skills required for an advanced pharmacy practitioner including independent practice skills as well as the ability to multi-task and prioritize duties and responsibilities.

Elective Learning Experiences:
Descriptions of each learning experience can be found in PharmAcademic.

There are a variety of elective learning experiences from which the resident can choose. This will allow the resident the flexibility to tailor their PGY2 experience to an area of interest. Elective learning experiences will generally be scheduled in the second half of the residency year (after the majority of the required rotations are successfully completed). Electives can be selected from the list below and there will also be opportunities to develop new elective learning experiences:

- Medical ICU (MICU)
- Emergency Medicine (EM)
- General Cardiology Clinic
- Cardiothoracic Transplant Clinic – Heart (CTOP)
- Informatics (IT)

Staffing:
Staffing will be incorporated into the residency experience with weekend shifts that provides the opportunity for the PGY2 resident to staff both inpatient weekend shifts and transitions of care weekend shifts. The PGY2 resident will be required to staff 16 weekends (10 weekends of inpatient operations/clinical verification and 6

weekends of transitions of care), which includes 1 minor holiday weekend AND 1 major holiday (Thanksgiving, Christmas, or New Year's). To help provide more formative feedback during the inpatient weekend staffing, residents are expected to seek feedback from at least one staff member each weekend they staff. The feedback will be solicited via an online survey which can be found on the Pharmacy's intranet page.

Research Project:
The resident will be responsible for conducting a research project throughout the academic year that will be completed and presented at the UC Collaborative Annual Pharmacy Leadership Conference or an equivalent conference. Upon completion of the residency year, a project plan, abstract, platform presentation, and manuscript will be submitted as part of the research project. A Resident Research Primer Course has been developed by the UC San Diego Health Research Council to coach residents through the various aspects of the research process. PGY2 residents who have not previously completed the Research Primer Course are required to attend. PGY2 residents who have previously completed the Research Primer Course will be required to attend some, but not all, meetings. They will be required to complete all competencies. Passing competency score is 80%.

More information can be found in the Residency Manual. If time allows or if residents received an already IRB-approved research project, the resident will be involved with the initiation of a second project. This initiation phase will involve defining the study design, writing up the protocol and beginning the IRB approval phase. This will facilitate subsequent residents who can then finish the projects that were started the previous year.

Research time will be given during the resident year. During research weeks, the resident is expected to work for at least 8 hours daily; preferably between 6:00 am and 6:00 pm. Any excursions from this time must be discussed and approved by RPD prior to the day.

Practice Management:
The PGY2 resident will track their progress and development in the areas of practice management, medication use evaluation, order set review or guideline/protocol update, formulary monograph or drug class review, and effective education through this longitudinal experience. Quarterly, the RPD and resident will complete a summative evaluation via PharmAcademic and update the resident's customized training plan to track the resident's progress. Items which are included and evaluated in this longitudinal rotation include:

- **Committee Participation:** The resident will be required to participate in the Medication Error Reduction Plan (MERP) Committee. The committee reviews medication use and strives to find ways to reduce errors at UCSDH. The resident will work with the pharmacist assigned to that committee to be an active participant through meeting attendance and investigating medication related events and solutions.

- **Practice Management:** The resident will be required to complete a medication use evaluation, an order set review or guideline/protocol update, and a formulary monograph or drug class review.

- **Cardiology Appendix:** The resident's progress in covering disease states listed in the Cardiology Appendix (topics listed individually in learning experience descriptions) will be tracked through provided checklist and quarterly in the customized training plan.

Effective Education:
The resident will have opportunities to provide effective education through presentation of Grand Rounds (1 required), Clinical Forums (2 required), Journal Clubs (5 required), in-services (2 required), through leading Therapeutics Conferences, and the development of a manuscript for publication.

- **Grand Rounds**: The resident will deliver a 1-hour CE lecture to the pharmacy staff regarding a topic in cardiology. Please refer to the Residency Manual for more information on timelines, expectations, and evaluation strategies.

- **Clinical Forums:** Residents are required to present two Clinical Forums during the year to the pharmacy staff. Clinical Forums are clinically focused, 30-minute presentations based on a recent patient case. The resident is encouraged to discuss topics related to the ASHP Supplemental Appendix. All Clinical Forum

presentations need to be presented to the project preceptor at least one week in advance for feedback and comments. Failure to do so will result in a delay in the presentation. Please refer to the Residency Manual for more information and evaluation strategies.

- **Journal Clubs:** Residents are required to present five Journal Club presentations during the year. Journal Club topics should be focused on critically analyzing a recently published journal article related to cardiology pharmacotherapy. Presented Journal Clubs must be presented to the project preceptor at least one week in advance for feedback and comments. Failure to do so will result in delay of the presentation. Please refer to the Residency Manual for more information and evaluation strategies.

- **In-Services:** The resident is required to conduct two in-services during the residency year, with one focused on nursing staff and one focused on providers. The resident is expected to be proactive in determining the need for specific in-services over the course of the residency year.

- **Teaching - Skaggs School of Pharmacy and Pharmaceutical Sciences:** The resident is required to participate as a conference leader for one quarter of the Therapeutic Conferences. If there is interest from the resident, the resident can elect to teach a didactic lecture at the UCSD SSPPS. Residents will also have multiple opportunities to directly precept students who are on the same learning experience as the resident.

- **Teaching Certificate:** Participation in the Teaching Certificate program is required unless resident has completed a teaching certificate program during their PGY1 and will be discussed on a case-by-case basis. Please refer to the Residency Manual for more information on these topics. If the resident elects to complete the Teaching Certificate, the RPD will work with the PGY1 RPD to add the resident to expected events.

Assessment Strategy – PharmAcademic:
The program uses the ASHP online evaluation tool called PharmAcademic, which is available for all ASHP-accredited pharmacy residency programs. Residents who are matched with this PGY2 specialty program are entered into PharmAcademic prior to their anticipated start date. The incoming resident will complete a Self-Assessment as established by ASHP.

Residents' schedules and assigned objectives are entered into PharmAcademic. We have chosen to use the PharmAcademic evaluation tools for our Learning Experiences. For each Learning Experience, the following Assessments are completed:

- Preceptor Assessment of Resident: Summative
- Resident Assessment of the Learning Experience
    - Resident assessment of Preceptor
    - Resident assessment of Learning Experience

Preceptors and residents are encouraged to exchange in ongoing, daily, verbal feedback throughout each learning experience. The resident and preceptors are trained and reminded throughout the year to complete evaluations in a thorough (quantitatively and qualitatively) and timely manner. To this end, evaluations may be used, not only as assessment tools, but as tools that preceptors may turn to for help in guiding residents to improve, grow and achieve both the residency programs' and the residents' goals and objectives for the residency year. The RPD reviews all evaluations and solicits feedback from preceptors and residents to provide guidance to help the resident maximize the residency experience.

The resident will discuss individualized program goals and interests on a quarterly basis (Development Plans) with the RPD to evaluate where they are in meeting the residency goals and to set or modify goals for the remainder of the residency program. The resident may request to meet with the RPD outside of this quarterly meeting, as needed, if their interests change throughout the year. The resident may request schedule modifications throughout the residency year and the RPD will make all efforts to accommodate these requests. Assessment tools will be adjusted as changes are made.

The resident will be expected to complete all relevant exit evaluations as well as a year-long evaluation of the residency program. The results of these year-end program evaluations are reviewed by the RPD and Residency Advisory Committee (RAC) for merit and the potential development of action plans to achieve continuous quality improvement.

Assessment Overview (PGY2 Cardiology)

It is the resident's responsibility to initiate the evaluation process with each rotation preceptor prior to the end of each learning experience and to schedule at least quarterly meetings with the residency director

Learning Experience	Frequency	Summative Evaluation by Preceptor	Preceptor Evaluation by Resident	Learning Experience Evaluation by Resident
Orientation/Training	End of Learning Experience	**X**	**X**	**X**
Required Learning Experience	End of Learning Experience	**X**	**X**	**X**
Elective Learning Experience	End of Learning Experience	**X**	**X**	**X**
Therapeutics Conference	Midpoint	**X**		
	End of Learning Experience	**X**	**X**	**X**
Staffing	Quarterly	**X**		
	End of Learning Experience	**X**	**X**	**X**
Research	Quarterly	**X**		
	End of Learning Experience	**X**	**X**	**X**
Practice Management and Education	Quarterly	**X**		
	End of Learning Experience	**X**	**X**	**X**

PGY2 Cardiology Pharmacy Competency Areas, Goals and Objectives (2017 Standard):

- Competency Areas: Categories of the residency graduates' capabilities.
  - Competency Area R1: Patient Care
  - Competency Area R2: Advancing Practice and Improving Systems of Care
  - Competency Area R3: Leadership and Management
  - Competency Area R4: Teaching, Education, and Dissemination of Knowledge
  - Competency Area R5: Management of Cardiovascular (ACLS) Medical Emergencies
- Educational Goals: Broad statement of abilities.
- Educational Objectives: Observable, measurable statements describing what residents will be able to do as a result of participating in the residency program.
- The resident is encouraged to read detailed information about each goal at the ASHP website (click on "Cardiology – Effective 2027"): https://www.ashp.org/professional-development/residency-information/residency-program-resources/residency-accreditation/pgy2-competency-areas.
- For information about Goals and Objectives Taught/Taught and Evaluated in Learning Experiences, visit PharmAcademic, go the 'Reports' tab, and click on 'Goals and Objectives Taught/Taught and Evaluated in Learning Experiences'.

PGY2 Cardiology Pharmacy Residency Requirements for Completion:

Completion Requirements – Please check all that apply to the resident	
Learning Experiences/Staffing Requirements	
☒ Complete all evaluations in PharmAcademic	
☒ Successful completion of all learning experiences and a minimum of 90% of residency required objectives marked as Achieved for Residency (ACHR) with 100% marked as ACHR in Competency Area R1*	
☒ Disease state appendix	
☒ Staffing (_16____ weekends/year)	
☐ On-call (_____ weekends/year)	
Residency Project	
☒ Project Plan	☒ Platform Presentation at ____conference of choice__
☒ Abstract at ____conference of choice_____	☒ Final Manuscript
☐ Poster at _____	☐ Qualtrics Resident Research Project closeout form
☒ Research Primer Course	☐ Other (please specify):
Leadership and Practice Management	
☐ M&M qty:_____	☐ Other (please specify):
☒ MUE (including project plan and write up) qty: _1_____	☐ Other (please specify):
☒ Orderset review - qty: _1 (or guideline/protocol update)_	☐ Other (please specify):
☒ Monograph/Drug Class Review – qty: _1_____	☐ Other (please specify):
☒ Committee(s) Participation: MERP	☐ Other (please specify):
Teaching Certificate/Educational Requirements	
☐ Teaching Philosophy initial and final	☒ Grand Rounds
☐ Small Group Teaching (minimum 5 for Teaching Certificate)	☒ Clinical Forum - qty: ____2_____
	☒ Journal Club - qty: _____5_____
☐ Attend/Complete all required SDPRL assignments	☒ RN in-service - qty: _____1_____
☐ Didactic Lecture (please specify): _____	☒ MD in-service - qty: _____1_____
☐ SSPPS OSCE - qty: _____	☐ In-service to audience of choice - qty: _____
☐ Teaching Certificate Program Conferences	☐ Tech-talk - qty: _____
☐ Publication Submission	☒ Teaching Opportunity: Therapeutics Conference
☐ Other (please specify):	☐ Other (please specify):
☐ Other (please specify):	☐ Other (please specify):

*Successful completion is defined as all learning experience objectives marked satisfactory progress (SP), achieved (ACH) or achieved for residency (ACHR) by the final evaluation of the learning experience.

Appendix D: Critical Care

PGY2 Critical Care Pharmacy Residency Program Overview
National Match Service: **509952**
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/programs/critical-care/

The UC San Diego Health (UCSDH) Department of Pharmacy offers a one-year specialty residency in Critical Care pharmacy practice beginning either the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule and upon licensure in California (see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Scope:
The UCSDH Department of Pharmacy is responsible for service to its three primary locations of La Jolla, and Hillcrest, and East Campus which includes UC San Diego Medical Center in Hillcrest, Jacobs Medical Center, and Sulpizio Cardiovascular Center, and East Campus Medical Center. In addition, the department provides services to the Moores Cancer Center, Koman Family Outpatient Pavilion, Pharmacy Infusion Services (PhIS), Encinitas Cancer Center, Vista Cancer Center, various outpatient clinics, as well as several ambulatory care pharmacies. UC San Diego Health is also affiliated with Rady Children's Hospital-San Diego, the Veterans Affairs San Diego Healthcare System, and the Sharp Memorial Hospital Joint Blood and Marrow Transplant Program. The Health System is affiliated with the UC San Diego School of Medicine and the UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS). The Department of Pharmacy provides clinical services at all three hospitals, including ICU services in the surgical, medical, burn, neonatal and cardiovascular ICUs, as well as assorted other clinical services.

Purpose:
PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions, and board certification in the advanced practice area, if available.

Program Description:
UC San Diego Health is a university-affiliated teaching hospital which provides the unique capability to engage each of our residents in direct patient care activities, leadership development, project management, and teaching. Graduates from our program have taken a wide variety of critical care, emergency department and academia positions. Graduates will be prepared to sit for the Board Certified Critical Care Pharmacists (BCCCP) exam.

PGY2 residents will gain the skills to function as the primary ICU pharmacist during their required ICU learning experiences, with the expectation that the resident will handle all aspects of the medication process from ordering to administration and follow up. Primary responsibilities include rounding with the ICU team(s), designing, recommending, monitoring, and evaluating patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine, addressing all pharmacokinetically-monitored medications, being an active member of the Code Blue team, validating pharmacy orders for ICU patients, and overseeing and directing PGY1 resident and pharmacy student activities. This integration of staffing and clinical services prepares residents for any type of practice environment they may encounter in their future jobs by emphasizing the development of essential skills required for an advanced pharmacy practitioner: independent practice skills, multi-tasking and prioritization.

The resident will develop the leadership and project management skills during the residency year by participating hospital committees relevant to critical care patient management and also be involved in various projects, such as medication use evaluation, year-long project, and/or practice guideline/policy development. Scientific writing is strongly emphasized and the preparation and submission of a manuscript suitable for publication will be expected.

Teaching activities may include regular didactic presentations, leading ICU conferences for fourth year pharmacy students, involvement with UC San Diego SSPPS courses (e.g., conference leader for third year therapeutics course [optional], participation in Critical Care elective [required]), and, as warranted, clerkship preceptorship of PGY1 pharmacy practice residents and fourth-year UCSD pharmacy students. The ability to work independently and to supervise pharmacy students and residents will be emphasized.

Number of residency positions available: 2

Resident Pay and Benefits: Refer to UC San Diego Health Pharmacy Residency website (https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/ for details on salary and benefits

Requirements of PGY2 Pharmacy Residents Prior to Starting the Program:
(see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here))

Application Procedure:
All applicants must be enrolled in the Resident Matching Program. To facilitate this enrollment process and for further information, please visit the following website: www.natmatch.com/ashprmp**.** Applications will be accepted when PhORCAS opens and due by January 2nd.

1. Letter of intent: **We no longer use a letter of intent to evaluate candidates. Instead, we will be asking all candidates to complete an online supplemental application. PhORCAS will require you to submit a letter of intent; please upload a blank document. The UCSDH supplemental application can be found on our residency website page** PGY2 Critical Care Specialty Pharmacy Residency | UC San Diego Health (ucsd.edu)
2. Curriculum Vitae with all experiential rotations completed and anticipated learning experiences and pharmacy and non-pharmacy work experience.
3. Three electronic references are required. At least **two** of the references should be from preceptors or supervisors who can directly comment on your clinical practice skills.
   Note: Please have recommendation writers complete the electronic reference form within PhORCAS with detailed characteristics and narrative comments. A separate letter of recommendation is not required and is discouraged.

Interviews will be held during late January-February.

Program Structure:

- Orientation - 3-4 weeks (duration determined by the resident's previous experience)
- Required learning experiences: (7 Block, 4 - 5 weeks each, may be extended to account for blocks with holidays)
  - Unit/shift-based learning experiences;
    - C1 (Surgical and Trauma ICU) - 5 weeks
    - C2 (Burn ICU and Burn step down) - 4 weeks
    - C3 (Medical ICU) - 5 weeks
    - J1 (Pulmonary/oncology/surgical ICUs) - 5 weeks
    - J7 (Neuro ICU) - 4 weeks
    - S1 (Cardiovascular ICUs) - 5 weeks
    - Evening ICUs – 4 weeks
- Elective learning experiences: (3 Block, 4 weeks each)
  - Typically service-based experiences - See full list below
- Staffing (16 weekends, annually) (Longitudinal, 12 months)
  - Staffing shifts are 8 or 10 hours depending on the shift assignment
  - Learning Experience is divided in 6-month longitudinal blocks such that the resident completes half of the required weekends in Hillcrest and the other half in La Jolla.
    - Staffing Hillcrest (6 months)
    - Staffing La Jolla (6 months)
- Research Project (Longitudinal, 12 months)
  - Includes participation in Research Primer Series
- Practice Management (Longitudinal, 12 months)
  - Committee Participation (Code Blue Committee 6 months and Critical Care MERP 6 months)
  - Practice Management (MUE, Monograph/drug class review, order set review/development)
  - Critical Care Appendix
- Effective Education (Longitudinal, 12 months)
  - Journal club presentations (3 required, may choose to facilitate journal club for final one)
  - Clinical forum presentation (2 required)
  - In-services (2 required, MD and RN in-services)
  - Grand Rounds (1 required, may be completed with co-resident)
  - Participation in SSPPS 274 Critical Care Elective (1 lecture required, may be completed with co-resident)
  - Pharmacy Advanced Resuscitation Training (ART) Refresher Course
  - BCCCP Lecture Series (optional)
  - Teaching Certificate (optional)
  - Publication submission (does not have to be accepted)

Orientation:
The purpose of the orientation is to introduce the new pharmacy resident to aspects of UCSDH, the Department of Pharmacy, and the residency program. The pharmacy resident will attend a UCSDH New Employee Orientation (NEO) to learn about the benefits they receive during their appointment. Following the NEO, the pharmacy resident will receive department and residency program specific orientation, as well as staffing training. The orientation schedule will be provided to residents, which is designed to complete within 3 - 4 weeks, depending on their PGY1 training. The staffing training may be separated into two parts and will be provided when residents switch to different staffing sites (Hillcrest or La Jolla campuses). More training time will be given to residents if needed.

Required Learning Experiences:
Descriptions of each learning experience can be found in PharmAcademic

PGY2 residents will gain the skills to function as the primary ICU pharmacist during their required learning experiences with the expectation that the resident will handle all aspects of the medication process from ordering to administration and follow up. Because required ICU experiences will focus on developing the skills necessary to effectively be the lead ICU pharmacist, they will primarily be assigned in the first half of the residency year. Rather than focusing on a specific team, the PGY2 resident will be expected to identify medication-related issues and manage the therapeutic plan of every patient in the unit, regardless of the primary service. The resident will be expected to build relationships with each medical team in the ICU and work proactively with other disciplines (i.e. physicians, nurses, respiratory therapists, dieticians, social workers, and case managers) to achieve efficient workflow and medication delivery. Daily activities will include: participation in rounds, carrying the Code Blue emergency pager as assigned by the Pharmacist's schedule, reviewing each patient's profile for appropriateness of drug therapy, performing pharmacokinetic monitoring on all therapeutically monitored drugs (TDM), validating pharmacy orders on all ICU patients, assisting medication distributions, and overseeing and directing PGY1 resident and pharmacy student activities. This integration of staffing and clinical services prepares residents for any type of practice environment they may encounter in their future jobs by emphasizing the development of essential skills required for an advanced pharmacy practitioner: independent practice skills, multi-tasking and prioritization.

Elective Learning Experiences:
Descriptions of each learning experience can be found in PharmAcademic

There are a wide variety of learning experiences the resident can select as elective learning experiences. Elective learning experiences are listed below. Elective learning experiences generally allow the PGY2 resident to learn about being a service-based pharmacist. This will allow the resident the flexibility to tailor their PGY2 experience to an area of interest. Elective learning experiences will generally be scheduled in the second half of the residency year (after the required ICU learning experiences are completed). Other elective learning experiences may be developed based on resident interest and preceptor availability.

- Anesthesia Critical Care Medicine (ACCM)
- Bone Marrow Transplant
- Cardiology
- CT Transplant and Mechanical Assist Device
- Emergency Medicine
- Infectious Diseases, La Jolla
- Informatics
- Neonatal ICU and Obstetrics (NICU and OB)
- Neuro-Critical Care (NCC)
- Pediatric ICU at Rady Children's Hospital
- Pulmonary Post-ICU Recovery
- Pulmonary Critical Care Medicine (PCCM)
- Trauma

Staffing:
Staffing will be incorporated into the residency experience with weekend shifts that provide the opportunity for PGY2 residents to cover 1-3 ICUs simultaneously. The resident will spend approximately 6 months (8 weekends) at each medical campus (Hillcrest and La Jolla Jacobs Medical Center). The residents may also cover the Emergency Department or neonatal ICU after completion of the respective electives and discussion with the pharmacists in that practice area. The PGY2 critical care residents are required to staff 16 weekends (which includes 1 minor holiday weekend PLUS 1 major holiday (Thanksgiving, Christmas, or New Year's). To help provide more formative feedback, residents are expected to seek feedback from at least one staff member each weekend they staff. The feedback will be solicited via an online survey which can be found on the Pharmacy's intranet page.

Research Project:
The resident will be responsible for conducting a resident project throughout the academic year that will be completed and presented at the UC Collaborative Annual Pharmacy Leadership Conference, or an equivalent conference. A Resident Research Primer Course has been developed by the UC San Diego Health Research Council to coach residents through the various aspects of the research process. PGY2 critical care residents who have not previously completed the

Research Primer Course are required to attend. PGY2 critical care residents who have previously completed the Research Primer Course will be required to attend some, but not all, meetings. They will be required to complete all competencies. Passing competency score is 80%.

More information can be found in the Resident Manual. If time allows, the resident will be involved with the initiation of a second project. This initiation phase will involve defining the study design, writing up the protocol and beginning the IRB approval phase. The purpose of starting a second project is to facilitate subsequent critical care residents who can then finish the projects that were started the previous year. A list of project ideas will be generated from the ICU preceptors and the resident is expected to select a project during the first month of the residency year.

Practice Management:
The PGY2 resident will track their progress and development in the areas practice management and clinical quality improvement projects (if not a part of year-long resident project), medication use evaluation, order set review (and/or formulary monograph). Quarterly, the RPD and resident will complete a summative evaluation via PharmAcademic and update the resident's customized training plan to track the resident's progress. Items which are included and evaluated in this longitudinal rotation include:

Committee Participation: The resident will be required to participate in monthly Critical Care Medication Error Reduction Plan (MERP) meetings and bi-monthly Code Blue committee business meetings relevant to critical care patient management at UCSDH in a longitudinal manner; 6 months in Code Blue Committee and 6 months in Critical Care MERP. The Code Blue and Critical Care Medication Error Reduction Plan (MERP) Committees review medication use and strive to find ways to reduce errors and improve Code Blue and other emergency responses at UCSDH. The resident will work with the pharmacist assigned to that committee to be an active participant through meeting attendance and investigating medication related events and solutions.

Practice Management: The resident will be required to complete a formulary monograph/review or order set review and 1 medication use evaluation (MUE). Residents may collaborate with the other critical care resident for completion depending on the project assignments. The resident may be assigned additional practice management activities, such as medication use guidelines, health system policies, or order set development, related to their committee participation or practice management/research projects.

Critical Care Appendix: The resident will demonstrate an understanding of the critical care relevant diseases and conditions and have the ability to design appropriate treatment regimens and treat and assess outcomes. For some diseases and conditions, direct patient care is required. For the other diseases and conditions, the resident will demonstrate understanding of the diseases and condition via didactic instruction, case-based application, simulation, or other appropriate approach. The resident's progress in covering disease states listed in the Critical Care Appendix (topics listed individually in learning experience descriptions) will be tracked through attestation during core, unit-based learning experiences and quarterly in the customized training plan.

Effective Education: The resident will have opportunities to provide effective education through presentation of grand rounds (1 required during residency, may be done with co-resident), clinical forums (3 required during residency), journal clubs (3 required during residency), in-services (3 required during residency), didactic teaching opportunities (SPPS 274 Critical Care elective), Pharmacy ART Refresher Course (max 2 sessions during residency), and submission of a manuscript for publication. Additional teaching/education activities are available; however, the resident is required to communicate and discuss such participation with the RPD.

Grand Rounds: The resident will deliver a 1-hour CE lecture to the pharmacy staff regarding a topic in critical care. This presentation may be made in collaboration with their PGY2 Critical Care Pharmacy co-resident, with each resident presenting approximately 30 minutes of material. Please refer to the Residency Manual for more information on timelines, expectations, and evaluation strategies.

Clinical Forums: The resident will be required to present **2** clinical forums during the year at the frequency of 1 clinical forum every 6 months.Clinical Forums are patient case-focused, 20-minute presentations based on a recent patient case or challenging clinical scenario. The resident is encouraged to discuss topics related to the ASHP Supplemental Appendix for an Advanced Practice Residency in Critical Care for these presentations. All Clinical Forum presentations need to be presented to the project preceptor at least one week in advance for feedback and comments. Failure to do so will result in delay of the presentation. Please refer to the residency manual for more information and evaluation strategies.

Journal Clubs: The resident will be required to present **3** journal club presentations during the year. Journal Club topics should be focused on critically analyzing a recently published journal article related to critical care pharmacotherapy. During the second half of the year, the resident may choose to facilitate a PGY1 Journal Club in lieu of performing the final **one** of their required journal club presentations. Presented journal clubs must be presented to the project preceptor at least one week in advance for feedback and comments. Failure to do so will result in delay of the presentation. For facilitation, the resident assumes the role of the clinical preceptor and should critically analyze the article, coach the PGY1 resident through their analysis, and facilitate the discussion on the day of the presentation. Facilitators should provide feedback on their analysis and thoughts of the PGY1 one week prior to their presentation. Please refer to the residency manual for more information and evaluation strategies.

In-services: The resident will be required to present **2** in-services, including at least one nursing in-services and one physician in-services during the year. In-services are presentations/education provided to nurses or physicians in a variety of settings, for example committee meetings, staff meetings, or educational sessions. Other interdisciplinary in-services may be required at the discretion of the preceptor according to the learning experience description.

Teaching - Skaggs School of Pharmacy and Pharmaceutical Sciences:
Involvement with UCSD's School of Pharmacy will vary but the resident is required to participate in the Critical Care elective (SPPS 274) and the UCSD Pharmacy Acute Resuscitation Training (ART) hands-on learning experience at the Sim Lab. The resident may be asked to write up cases for therapeutics conference based on real patients, prepare a didactic lecture for therapeutic courses, or prepare exam questions based on the lectures presented. PGY2 Critical Care residents may also choose to be conference leader for one of the therapeutics courses for 3rd year pharmacy students or participate in OSCE (objective structured clinical experience) as facilitators. Residents will also have multiple opportunities to directly precept students and PGY1 residents who are currently on rotation with the resident.

BCCCP Lecture Series (aka Critical Care Bootcamp):
Critical care residents will have the option to participate in the BCCCP Lecture Series, aka Critical Care Bootcamp, throughout the year. These topics will be related to Critical Care Appendix or the BCCCP Preparatory Review Course and will be relevant to the patient population they are currently involved with from a learning experience perspective, when possible. All parties are welcome to attend, but the core ICU pharmacists are strongly encouraged to attend. This lecture series is held in conjunction with the San Diego Veteran's Affairs, Sharp Healthcare, and Scripps Mercy PGY2 critical care residents, giving the residents the opportunity to network with other critical care pharmacists in the area.

Pharmacy Advanced Resuscitation Training (ART) Refresher Course:
Pharmacy ART program is a pharmacist-led advanced resuscitation training program that is considered equivalent to the Advanced Cardiovascular Life Support training at UC San Diego Health. The program consists of two parts, 1) 4-hour lectures on pharmacists' responsibilities at code emergencies at UCSDH, 2) 4-hour in-person simulation cases. Pharmacy ART is available twice a year for pharmacy residents and staff pharmacists. In addition, a Pharmacy ART refresher course will be hosted at the Hillcrest Medical Center by the PGY2 residents and the preceptor. The residents are expected to create/review one patient care and a disease state topic discussion or create disease state presentation(s) as assigned, and lead/participate in case-based simulations.

Teaching Certificate:
Participation in the Teaching Certificate program is optional and will be discussed on a case by case basis. Please refer to the Residency Manual for more information on these topics. If the resident elects to complete the Teaching Certificate, the RPD will work with the PGY1 RPD to add the resident to expected events.

Publication Submission:
The resident will be required to submit a manuscript for publication by the end of their residency. The purpose of this requirement will be the development of scientific writing and communication skills. The types of publishable literature can include any of the following types of manuscripts. Previous residents have completed case Reports with a review of relevant literature, primary research/original research, medication Use Evaluation, meta-analysis of a disease state or therapy, or review articles.

Resident Learning Experiences and Rotation Schedule (2025-2026 Example)

A minimum of 80% of rotation time must be completed on block learning experiences

Learning Experience	Dates#	R1	R2	Presentation Schedule or other items	Committees	Research (See Manual for updated schedule)
Orientation	**7/28-8/1**	Schedule (TBD)	Schedule (TBD)			Research Primer 1,2
Staffing Training	**8/4 - 8/15**	**LJ**	**HC**		R2-Code Blue R1- CC MERP	Research Primer 3, 4
1	**8/18-9/19**	J1	C3	In-service #1	R2-Code Blue R1- CC MERP	Research Primer 5
Project week	**9/22-9/26**					
2	**9/29-10/24**	J7	C1	Clinical Forum #1	R2-Code Blue R1- CC MERP	Research Primer 6
3	**10/27-11/28**	S1	C2	JC #1	R2-Code Blue R1- CC MERP	Fall Research Check-In
4	**12/1-12/26**	C2	S1	Grand Rounds	R2-Code Blue R1- CC MERP	
Project week	**12/29-1/2**	Research/Admin catch up and PGY2 candidate review			R2-Code Blue R1- CC MERP	
Orientation	**1/5 – 1/9**	HC	LJ			
5	**1/12-2/13**	C3	J1	Pharmacy ART Refresher Course	R1-Code Blue R2- CC MERP	
6	**2/16-3/20**	C1	J7	SPPS 274 Interviews	R1-Code Blue R2- CC MERP	
SCCM/ Project time	**3/23-3/27**			Clinical forum #2		
7	**3/30-4/24**	CTTxVAD	NICU	JC #2 (may facilitate or present)	R1-Code Blue R2- CC MERP	Spring Research Check-In
Project week	**4/27-5/1**					
9	**5/4-5/29**	ID	ED	In-service #3	R1-Code Blue R2- CC MERP	UC Pharmacy Collaborative Conference
10	**6/1-6/26**	NICU	BMT	Clinical forum #3	R1-Code Blue R2- CC MERP	
11	**6/29-7/24**	Evening ICUs	Evening ICUs	JC #3 (may facilitate or present)	R1-Code Blue R2- CC MERP	Submit manuscript

#C1, C3, J1, S1 rotations are 5 weeks. Other block learning experiences are 4 weeks.
Research/project time will be given during the resident year. During project weeks, the resident is expected to work for at least 8 hours daily; preferably between 6:00 am and 6:00 pm. Any excursions from this time must be discussed and approved by RPD prior to the day.

Local/Regional/National Meetings:
The residents will have the opportunity to attend various professional meetings throughout the year. Travel funds are included in the annual salary. Residents are encouraged to attend a specialty meeting (e.g. Society of Critical Care Medicine Annual Congress). Attendance at UC Collaborative Annual Pharmacy Leadership Conference (or an equivalent conference) to present their resident project is mandatory.

Assessment Strategy – PharmAcademic:

The PGY2 Critical Care Specialty Residency Program uses the ASHP on-line evaluation tool called PharmAcademic, which is available for all ASHP-accredited pharmacy residency programs. Residents who are matched with this PGY2 specialty program are entered into PharmAcademic prior to their anticipated start date. The incoming resident will complete a Self-Assessment as established by ASHP.

The RPD uses the Entering Resident Self-Assessment Form to create residents customized training plan. The Residency Requirement Checklist and Customized Training Plan will be discussed and modified (as necessary) through a collaborative effort between the RPD and resident. In addition, the resident may request schedule modifications throughout the residency year and the RPD will make all efforts to accommodate these requests. Assessment tools will be adjusted as changes are made. The RPD will share changes to the Residency Requirement Checklist and Customized Training Plan via PharmAcademic automatic emails to scheduled preceptors and during quarterly PGY2 Critical Care Residency Advisory Council (RAC) meetings.

Residents' schedules are entered into PharmAcademic. For each learning experience, the following assessments are completed:

- Preceptor Assessment of Resident: Summative (for each learning experience)
- Resident Assessment of the Learning Experience
    - Resident assessment of Preceptor(s)
    - Resident assessment of Learning Experience

Preceptors and residents are encouraged to exchange in on-going, daily verbal feedback throughout each learning experience. Residents are expected to provide constructive feedback to the preceptor in their PharmAcademic evaluation at the end of the learning experience. This feedback, along with Preceptor self-evaluation, is helpful in developing worthwhile and relevant preceptor development programming. The Resident and Preceptors are trained and reminded throughout the year to complete evaluations in a thorough (quantitatively and qualitatively) and timely manner (within 7 days of learning experience end). To this end, evaluations may be used, not only as assessment tools, but as tools that Preceptors may turn to for help in guiding Residents to improve, grow and achieve the residency programs and the residents' goals and objectives for the residency year. The RPD reviews all evaluations and solicits verbal feedback from preceptors and residents to provide guidance to help the resident maximize the residency experience.

Resident's will be required to complete a PGY2 Critical Care Program Evaluation during the 3rd quarter. Feedback will be discussed at the PGY2 Critical Care RAC meeting and agreed upon changes will be incorporated into the next academic year structure.

Assessment Overview (PGY2 Critical Care)

It is the resident's responsibility to initiate the evaluation process with each rotation preceptor prior to the end of each learning experience and to schedule at least quarterly meetings with the residency director.

	Frequency	Summative Evaluation by Preceptor	Preceptor Evaluation (Resident)	Learning Experience Evaluation (resident)	On-Demand
Orientation / Training	End of Learning Experience	X	X	X	
Required Learning Experience	End of Learning Experience	X	X	X	
Elective Learning Experience	End of Learning Experience	X	X	X	
Practice Management and Education	Quarterly	X			
	End of Learning Experience	X	X	X	
Longitudinal Learning Experience	Midpoint	X			
	End of Learning Experience	X	X	X	
Research	Quarterly	X			
	End of Learning Experience	X	X	X	
Staffing	Quarterly	X			
	End of Learning Experience	X	X	X	
Grand Rounds Journal Club Clinical Forum Teaching Committees					X

PGY2 Critical Care Competency Areas, Goals and Objectives:

- Educational Outcome: broad categories of the residency graduates' capabilities.
  - Competency Area R1: Patient Care
  - Competency Area R2: Advancing Practice and Improving Patient Care
  - Competency Area R3: Leadership and Management
  - Competency Area R4: Teaching, Education, and Dissemination of Knowledge
- Educational Goals: Goals listed under each outcome are broad sweeping statements of abilities.
- Educational Objectives: Resident achievement of educational goals is determined by assessment of the resident's ability to perform the associated educational objective below each educational goal.
- The resident is encouraged to read detailed information about each goal at the ASHP website (click on Critical Care Pharmacy (PGY2), 2016) PGY2 Competency Areas - ASHP
- For information about Goals and Objectives Taught/Taught and Evaluated in Learning Experiences, please visiting PharmAcademic, go the 'Reports' tab, and click on 'Goals and Objectives Taught/Taught and Evaluated in Learning Experiences'.

PGY2 Critical Care Residency Requirements for Completion:

Completion Requirements – Please check all that apply to the resident	
Learning Experiences/Staffing Requirements	
☒ Complete all evaluations in PharmAcademic ☒ Successful completion of all learning experiences and a minimum of 90% of residency required objectives marked as Achieved for Residency (ACHR) with 100% marked as ACHR in Competency Area R1* ☒ Disease state appendix ☒ Staffing (_16____ weekends/year) ☐ On-call (_____ weekends/year)	
Residency Project	
☒ Project Plan ☐ Abstract at _____ ☐ Poster at _____ ☒ Research Primer Course	☒ Platform Presentation at UC Pharmacy Conference or equivalent conference per RPD approval_____ ☒ Final Manuscript ☐ Qualtrics Resident Research Project closeout form
Leadership and Practice Management	
☐ M&M qty:_____ ☒ MUE (including project plan and write up) qty: _1___ ☒ Orderset review - qty: 1 (if not complete monograph/drug class review) _____ ☒ Monograph/Drug Class Review - qty:__1 (if not complete orderset review)_____ ☒ Committee(s) Participation (please specify): 6 months of Code Blue and 6 months of Critical Care MERP	☐ Other (please specify): ☐ Other (please specify): ☐ Other (please specify): ☐ Other (please specify): ☐ Other (please specify):
Teaching Certificate/Educational Requirements	
☐ Teaching Philosophy initial and final ☐ Small Group Teaching (minimum 5 for Teaching Certificate) ☐ Attend/Complete all required SDPRL assignments ☒ Didactic Lecture (please specify): 1 Critical Care Elective_____ ☐ SSPPS OSCE - qty: _____ ☐ Teaching Certificate Program Conferences ☒ Publication Submission ☒ Other (please specify): PhART Refresher Course	☒ Grand Rounds ☒ Clinical Forum - qty: ____2_____ ☒ Journal Club - qty:_____3_____ ☐ RN in-service - qty: _____ ☐ MD in-service - qty: _____ ☒ In-service to audience of choice - qty:___2_____ ☐ Tech-talk - qty: _____ ☐ Teaching Opportunity (please specify): ☐ Other (please specify): ☐ Other (please specify):

Appendix E: Health System Pharmacy Administration and Leadership

PGY2 Health System Pharmacy Administration and Leadership Residency Program Overview
National Matching Service Code: **758463**
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/programs/health-system/

The UC San Diego Health (UCSDH) Department of Pharmacy offers a one-year specialty residency in health-system pharmacy administration and leadership beginning either the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule and upon licensure in California (see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (link here)).

Scope:
UC San Diego Health consists of three medical centers (UC San Diego Medical Center in Hillcrest, the La Jolla Campus consisting of Jacobs Medical Center, the John M. and Sally B. Thornton Pavilion, and Sulpizio Cardiovascular Center as one acute care entity, and UC San Diego Health East Campus) and associated outpatient clinics. UC San Diego Health is affiliated with the UC San Diego School of Medicine and the UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS). The Department of Pharmacy provides clinical services in both the inpatient and outpatient setting to a broad spectrum of patient populations including internal medicine, surgery, cardiology, oncology, solid organ transplant, bone marrow transplant, Women and Infant Services, infectious diseases, nephrology, cystic fibrosis, pulmonary hypertension and HIV/AIDS.

This residency balances the provision of administration as it provides oversight of direct patient care in all patients in both the inpatient and ambulatory care setting as well as opportunities to incorporate strategic planning to improve established services and develop new ones. This program has the potential to offer additional electives based on interest and further personal and professional development. Thera are many research and teaching opportunities that can be tailored to the resident's interest.

Program Purpose:
PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions, and board certification in the advanced practice area, if available.

Program Description:
UC San Diego Health is a university-affiliated teaching hospital which provides the unique capability to engage each of our residents in direct patient care activities, research, administration and project management, and teaching. The PGY2 Health-System Pharmacy Administration and Leadership (HSPAL) residency program at UC San Diego Health is designed to provide residents with extensive experience in all aspects of management and leadership, while giving insight into key issues confronting the practice of pharmacy in an integrated health-system. Training is provided in various aspects of pharmacy management to develop the resident's knowledge and skills to become a healthcare leader. Residents will be encouraged, trained, and required to take ownership in designing, implementing, and enhancing pharmacy services to improve patient outcomes; this includes providing evidence-based contributions and recommendations to improve the medication-use process. Emphasis is placed on independent thinking and application of management concepts in the development of progressive health-system services in order to continuously improve quality and patient safety.

Teaching activities may include regular didactic presentations to pharmacy and other disciplines, leading therapeutics conferences for third year pharmacy learners, other involvement with UC San Diego SSPPS courses (e.g., conference leader for third year therapeutics course, and, as warranted, clerkship preceptorship of PGY1 pharmacy practice residents and fourth-year UCSD pharmacy learners. The ability to work independently and to supervise pharmacy learners and PGY1 residents will be emphasized. The resident will also be involved in a research project. Scientific writing is strongly emphasized and the preparation and submission of a manuscript suitable for publication will be expected.

Upon completion of residency, UC San Diego PGY2 Health-System Pharmacy Administration and Leadership residents will be competent in the management of pharmacy services, medication-use processes, regulatory compliance, human resources, fiscal responsibility, technology and automation, specialty pharmacy, transitions of care, etc. The program is designed to provide advanced training in both clinical and administrative practice settings. These pharmacists will also gain experience in collaborating with other health care professionals.

Program Outcomes:
To achieve these goals, the resident agrees to do the following for the duration of his/her post-graduate pharmacy education training at UC San Diego Health:

- Residents must be committed to the values and mission of UC San Diego Health and the Department of Pharmacy
- Develop and participate in a personal program of self-study and professional growth with the guidance from Pharmacy preceptors, advisors, staff, faculty and the Residency Program Director (RPD)
- Under the supervision of pharmacy preceptors, staff, faculty and the RPD, participate in safe, effective and compassionate patient care
- Participate fully in the educational activities of the residency program and assume responsibility for the teaching of patients, students, pharmacists, and allied health professions
- Participate in institutional programs and activities and adhere to established practices, procedures and policies of the institution
- Participate in Department of Pharmacy committees and system-wide committees as assigned by the Program Director or rotation preceptors
- Develop an understanding of ethical, socioeconomic, medical/legal issues that affect fiscally responsible pharmacy practice
- Perform all duties in accordance with the established practices, procedures and policies of the institution, its programs, clinical departments and other institutions to which the resident is assigned, and the State of California and the California Board of Pharmacy
- Strict adherence to the moonlighting policies of the Pharmacy Residency Program
- Comply with the duty hours and working conditions policies of UC San Diego Health
- Adhere to the rotation and staffing schedules as assigned
- Document all activities in a timely manner

Number of residency positions available: 1 new resident is accepted each year.

Resident Pay and Benefits: Refer to UC San Diego Health Pharmacy Residency website (https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/) for details on salary and benefits

Requirements:
On-site or virtual interviews will be held during late January through early March. This specialty residency program participates in the ASHP Resident Matching Program. **All applicants must be enrolled in the Resident Matching Program**. To facilitate this enrollment process and for further information, please visit the following website: www.natmatch.com/ashprmp

Requirements of Residents Prior to Starting the Program:
(see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (link here))

Application:
All applicants must be enrolled in the Resident Matching Program. To facilitate this enrollment process and for further information, please visit the following website: http://www.natmatch.com/ashprmp. Applications will be accepted when PhORCAS opens and are due by January 2nd. Applications submitted through PhORCAS will include the following:

1. Letter of intent
2. Current *Curriculum Vitae* with all experiential completed and anticipated rotations as well as pharmacy work experience.

3. Three electronic references are required from preceptors who can directly comment on your clinical and practice skills.
    a. **Note**: Please have recommendation writers complete the electronic reference form within PhORCAS with detailed characteristic and narrative comments. One to two areas of improvement or constructive feedback that the recommender feels the candidate should continue to work on as a PGY2 resident should be identified. A separate letter of recommendation is NOT required and discouraged.
4. Letter of endorsement from PGY1 Residency Program Director (if RPD is not one of the three preceptors' references mentioned above)
5. Complete the online supplemental application: https://ucsd.co1.qualtrics.com/jfe/form/SV_23Ma2f6yreKYBZc

Program Structure:
Rotations (aka learning experience):
Descriptions of each learning experience can be found in PharmAcademic

- **Orientation & Training (3 weeks)**
- **Longitudinal rotations (total time of at least 6 months each, time in PharmAcademic may be extended due to block learning experiences intermittently scheduled, request for time off, and holidays)**
    - Pharmacy Executive Management
    - Operations Administration & Staffing
    - Business & Financial Management
    - Medication Safety & Regulatory Compliance
    - Formulary Management
    - Human Resources
    - Professional Development
    - Technology & Automation
    - Research Project
- **Block rotations (4 weeks consecutive)**
    - Controlled Substance Management
    - Specialty Pharmacy Management
    - Transitions of Care Management

Design and Schedule: The primary residency experience will be longitudinal to maximize resident exposure to management and leadership.

- Strategic Planning
- Pharmacy Operations & Leadership
- Regulatory Oversight & Management, Quality Assurance, & Medication Safety
- Financial Management
- Pharmacy Practice Model Design
- Informatics
- Clinical Planning and Oversight
- Human Resources Management – Interviewing, Recruitment, Retention, & Performance
- Drug Use Policy and Pharmacoeconomics
- Purchasing – drug distribution, supply chain, contracting
- Precepting and teaching PGY1 Residents and students
- Participation in various committees
- Staffing in Central and Decentral Pharmacy Services areas
- Special Projects

Staffing:

Staffing will be incorporated into the residency experience with weekend shifts that provide the opportunity for PGY2 residents to cover different areas and patient populations. The staffing component includes both direct patient care activities as well as Administrator-on-call (AOC). The PGY2 HSPAL resident is required to staff 16 weekends (which includes 1 minor holiday weekend PLUS 1 major holiday (Thanksgiving, Christmas, or New Year). To help provide more formative feedback, residents are expected to seek feedback from at least one staff member each weekend they train or staff. The feedback will be solicited via an online survey which can be found on the Pharmacy's intranet page.

Assessment Strategy – PharmAcademic:

The PGY2 Health-System Pharmacy Administration & Leadership Residency Program uses the ASHP on-line evaluation tool called PharmAcademic, which is available for all ASHP-accredited pharmacy residency programs.

Residents who are matched with this PGY2 specialty program are entered into PharmAcademic prior to their arrival in August. The incoming resident completes two pre-residency questionnaires that help the Residency Program Director (RPD) design a residency year that is tailored to the specific needs and interests of the resident:

- ASHP Standard Entering Interests Form
- Goal-Based Entering Interests Form

Residents' schedules and assigned RLS Goals are entered into PharmAcademic. For each Learning experience, the following Assessments are completed:

- Preceptor Assessment of Resident: Summative (for each Learning experience)
- Resident Self-Assessment: Summative self (for each Learning experience)
- Resident Assessment of the Learning Experience
    - Resident assessment of Preceptor
    - Resident assessment of Learning Experience

Preceptors and residents are encouraged to exchange on-going, daily verbal feedback throughout each rotation experience. Four-week block rotations have a mid-point summative evaluation as well. The Resident and Preceptors are trained and reminded throughout the year to complete evaluations in a thorough (quantitative and qualitative) and timely manner. To this end, evaluations may be used, not only as assessment tools, but as tools that Preceptors may turn to for help in guiding Residents to improve, grow and achieve the residency programs and the residents' goals and objectives for the residency year. The RPD reviews all evaluations and solicits verbal feedback from preceptors and residents to provide guidance to help the resident maximize the residency experience.

The resident discusses their program goals and interests quarterly (Quarterly Update and Customized Training Plan) with the RPD Form to evaluate their progress in meeting the residency goals and to set or modify goals for the remaining six months of the residency program. Residents may meet as needed as their interests change throughout the year. The resident may request schedule modifications throughout the residency year and the RPD will make all efforts to accommodate these requests. Assessment tools will be adjusted as changes are made.

The Resident shall complete the ASHP PharmAcademic exit evaluation toward the end of the year. Residents also are requested to complete a year-long evaluation of the Residency Program.

The results of these year-end Program evaluations are reviewed by the RPD for potential merit and potential action plans are developed in an effort to achieve continuous quality improvement.

Assessment Overview (PGY2 Health System Pharmacy Administration)

It is the resident's responsibility to initiate the evaluation process with each rotation preceptor prior to the end of each learning experience and to schedule at least quarterly meetings with the residency director.

		Type of Assessment				
Learning Experience	**Frequency**	**Resident Self-Assessment (summative)**	**Preceptor Assessment of Resident (summative)**	**Resident Assessment of Preceptor and Rotation**	**RPD Assessment of Resident (Quarterly eval)**	**RPD Snapshot of Resident**
Orientation	Per rotation	✓	✓	✓		
Longitudinal Core Rotations	Quarterly	✓	✓	✓		
Block Rotations	Per rotation	✓	✓	✓		
Electives	Per rotation	✓	✓	✓		
Grand Rounds	Per experience					✓
Clinical Forum	Per experience					✓
Journal Club	Per experience					✓
Research	Quarterly	✓		✓	✓	
Operations	Quarterly	✓		✓	✓	
Resident Baseline Skills and Knowledge	Quarterly	✓			✓	
Program Evaluation	**Quarterly**				✓	

PGY2 Health System Pharmacy Administration & Leadership Competency Areas, Goals, and Objectives:

- Educational Outcome: broad categories of the residency graduates' capabilities. The resident is encouraged to read detailed information about each goal at the ASHP website (click on Health System Pharmacy Administration (PGY2).
- Refer to the following for more details.
  - https://www.ashp.org/-/media/assets/professional-development/residencies/docs/pgy2-hspal-core-cago-final-bod-approved-2018.pdf
- Educational Goals: Goals listed under each outcome are broad sweeping statements of abilities.
- Educational Objectives: Resident achievement of educational goals is determined by assessment of the resident's ability to perform the associated educational objective below each educational goal.

- For information about Goals and Objectives Taught/Taught and Evaluated in Learning Experiences, please visiting PharmAcademic, go the 'Reports' tab, and click on 'Goals and Objectives Taught/Taught and Evaluated in Learning Experiences'.

Local/Regional/National Meetings:
The residents will have the opportunity to attend various professional meetings throughout the year. Travel funds are included in the annual salary. Residents are encouraged to attend a specialty meeting (e.g. ASHP Conference for Leaders). Attendance at UC Collaborative Annual Pharmacy Leadership Conference (or an equivalent conference) to present their resident project is mandatory.

PGY2 Health System Pharmacy Administration Residency Requirements for Completion/Graduation:

UC San Diego Health

Residency Completion Requirements

Pharmacy Residency Program:	**PGY2 Health System Pharmacy Administration & Leadership (HSPAL)**	**Class of:**	**2025-2026**
Resident Name (Print):			

Completion Requirements – Please check all that apply to the resident	
Learning Experiences/Staffing Requirements	
☒ Complete all evaluations in PharmAcademic	
☒ Successful completion of all learning experiences and a minimum of 90% of residency required objectives marked as Achieved for Residency (ACHR) with 100% marked as ACHR in Competency Area R1*	
☐ Disease state appendix	
☒ Staffing (_8__ weekends/year)* (may be adjusted with on-call for a total of 16 weekends per year)	
☒ On-call (__8__ weekends/year)* (see above)	
Residency Project	
☐ Project Plan	☒ Platform Presentation at _conference of choice_____
☒ Abstract at _conference of choice_____	☒ Final Manuscript
☐ Poster at _____	☐ Qualtrics Resident Research Project closeout form
☒ Research Primer Course	☐ Other (please specify):
Leadership and Practice Management	
☒ M&M qty:1_____	☐ Other (please specify):
☒ MUE (including project plan and write up) qty: 1____	☐ Other (please specify):
☐ Orderset review - qty: _____	☐ Other (please specify):
☐ Monograph/Drug Class Review - qty:_____	☐ Other (please specify):
☒ Committee(s) Participation (please specify): P&T, MERP, others as needed and appropriate	☐ Other (please specify):
Teaching Certificate/Educational Requirements	
☐ Teaching Philosophy initial and final	☒ Grand Rounds
☐ Small Group Teaching (minimum 5 for Teaching Certificate)	☒ Clinical Forum - qty: 1_____
☐ Attend/Complete all required SDPRL assignments	☒ Journal Club - qty: 1_____
☐ Didactic Lecture (please specify):_____	☒ RN in-service - qty: 1_____
☐ SSPPS OSCE - qty: _____	☒ MD in-service - qty:1_____
☐ Teaching Certificate Program Conferences	☒ In-service to audience of choice - qty:_____
☒ Publication Submission or written to journal specification	☒ Tech-talk - qty: 1_ requirement to precept PGY1_____
☐ Other (please specify):	☒ Teaching Opportunity (please specify): Therapeutics Conference
☐ Other (please specify):	☐ Other (please specify):
	☐ Other (please specify):

*Successful completion is defined as all learning experience objectives marked satisfactory progress (SP), achieved (ACH) or achieved for residency (ACHR) by the final evaluation of the learning experience.

In compliance with the ASHP Residency Accreditation Standard, the Residency Manual was reviewed with me during orientation and is within 14 days from the start of the residency. I understand that the finalized Residency Manual for this year may be updated according to resident/preceptor feedback, health system policy changes, or accreditation standard updates. I have read and understand the contents of the Residency Manual and all program requirements. I understand that to successfully close out my residency and receive my Certificate of Completion all outstanding projects as it relates to the list above must be signed off by the end of residency.

The structure of the program is longitudinal and project based throughout the year. A primary preceptor will be identified for the PGY2 resident in each learning experience. The resident will participate as an active member of the pharmacy administration team and will have input on key hospital initiatives that affect the medication-use process. The resident will assume staffing and clinical responsibilities approximately 2-3 days per month which may include assuming the responsibility of department administrator

Appendix F: Infectious Diseases

PGY2 Infectious Diseases Pharmacy Residency Program Overview
National Matching Service Code: **509655**
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/programs/infectious-diseases/

The UC San Diego Health Department of Pharmacy offers a one-year specialty residency in infectious disease pharmacy practice beginning either the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule and upon licensure in California (see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Scope:
UC San Diego Health (UCSDH) consists of three acute care hospitals (UC San Diego Medical Center in Hillcrest, La Jolla Campus (Jacobs Medical Center, Sulpizio Cardiovascular Center and Thornton Hospital) and East Campus) and associated outpatient clinics. UCSDH is also affiliated with Rady Children's Hospital-San Diego, the Veterans Affairs San Diego Healthcare System and the Sharp Memorial Hospital Joint Bone and Marrow Transplant Program. UCSDH is affiliated with the UC San Diego School of Medicine and the UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS). The Department of Pharmacy provides clinical services in both the inpatient and outpatient setting to a broad spectrum of patient populations including, but not limited to, internal medicine, surgery, cardiology, oncology, solid organ transplant, bone marrow transplant, infectious diseases, HIV/AIDs, nephrology, cystic fibrosis, pulmonary hypertension, neonatology, neurocritical, burn and trauma. The Infectious Diseases (ID) service at UCSDH provides broad inpatient coverage via multiple consult teams, and in addition provides specialty consult services for Hematology and Oncology, Solid Organ Transplant, and HIV/AIDs.

This specialty residency balances the provision of patient care with infectious diseases. Emphasis will be placed on antimicrobial stewardship, acting as an active and essential member of the Infectious Diseases Consultation Service(s) and the Antimicrobial Stewardship Program, active participation in microbiology laboratory rounds, and with emphasis on collaborations with the multidisciplinary teams in patient care, stewardship, projects and teaching opportunities. This flexible program is tailored to the individual's interest within the infectious diseases and antimicrobial stewardship discipline with opportunities to implement new or previously established services. There are many research and teaching opportunities that can be tailored to the resident's interest.

Program Purpose:
PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions, and board certification in the advanced practice area, if available.

Program Description:
UCSDH is a university-affiliated teaching hospital system which provides the unique capability to engage each of our residents in direct patient care activities, projects/research, administration and project management and teaching. A primary goal of the UCSDH PGY2 Infectious Diseases Pharmacy Residency is to train and educate pharmacists in the delivery of exemplary pharmaceutical care to patients with infectious diseases. This residency embraces the concept that infectious diseases pharmacy practitioners share in the responsibility and accountability in collaborating and facilitating safe, effective and optimal drug therapy outcomes. Graduates will be prepared to sit for the Infectious Diseases Pharmacy Specialty Certification (BCIDP) exam.

Infectious diseases pharmacy residents completing this program will aim to function independently as practitioners through conceptualizing, integrating, and transforming accumulated experience and knowledge into improved drug therapy for patients and overall antimicrobial stewardship. The core learning experiences are designed to allow for development of the knowledge and skills to understand and appreciate implications of antimicrobial therapy and manage treatment of infectious diseases for a diverse set of patients with numerous complexities and co-morbidities. Primary service responsibilities include antimicrobial stewardship, attending microbiology laboratory rounds, and participation in Infectious Diseases Consultation Service(s). Residents will be required to staff 16 weekends covering inpatient medicine patients in medication management, order verification, interdisciplinary collaboration of patient care. A number of

electives are available for the resident to select from to tailor training to individual interests and deepen knowledge and skills in specific areas.

The resident will develop the leadership and project management skills during the residency year by participating hospital committees relevant to infectious diseases and antimicrobial stewardship (such as the Antimicrobial Utilization Committee) and also be involved in various initiatives and projects, such as medication use evaluation(s), year-long project, and/or practice guideline/policy development. Scientific writing is strongly emphasized and the preparation and submission of a manuscript suitable for publication will be expected.

Teaching activities may presentations to healthcare professionals and/or those in training, may include a didactic lecture [optional], acting as a conference leader for ID conferences in the third-year therapeutics course [required] and clerkship preceptorship of PGY1 pharmacy practice residents and/or SSPPS pharmacy students. The ability to work independently, practicing the four preceptor roles in a layered learning model and supervise residents and/or students will be emphasized.

Graduates of this specialized program will create working career plans and possess intense, focused marketable skills that should prepare them for career opportunities in Infectious Diseases and Antimicrobial Stewardship in addition to any advanced pharmacy practitioner: independent practice skills, interdisciplinary collaboration, multi-tasking and prioritization in a dynamic care environment

Number of residency positions available: 1 resident is accepted each year

Resident Pay and Benefits: Refer to UC San Diego Health Pharmacy Residency website (https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/) for details on salary and benefits

Requirements of Residents Prior to Starting the Program:
See "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)

Residency Application Process:
Each year, the RPD will determine if UCSDH will participate in early commitment and/or go through the nationwide resident matching program. If RPD selects to early commit, UC SWEC PGY2 Residency Program Policy and Procedures will be followed (see Appendix P).

Applications for ASHP Match should include the following:
All applicants must be enrolled in the Resident Matching Program. To facilitate this enrollment process and for further information, please visit the following website: www.natmatch.com/ashprmp. ASHP Match Application Deadline: January 2, On-Site or Virtual Interviews held January – March.

1. **Letter of intent:** Please address the following items in your letter of intent and how you will play a role in these items. Your letter of intent should be no more than 2 pages in length.
    - Address where you feel infectious diseases pharmacy will be in 5 years.
    - Address your vision of an infectious diseases pharmacist practicing at the top of their license.
2. **Current *Curriculum Vitae***: include all experiential completed and anticipated learning experiences as well as pharmacy and non-pharmacy work experience.

    References: Three (3) electronic references are required. *At least* **two (2)** of the letters should be from preceptors or supervisors who can directly comment on your clinical and practice skills.
    - **Note:** for the ASHP Match, please have recommendation writers complete the electronic reference form within PhORCAS with detailed characteristic and narrative comments. One to two areas of improvement or constructive feedback that the recommender feels the candidate should continue to work on as a PGY2 resident should be identified. No separate letter of recommendation is required.
3. Letter of endorsement from PGY1 Residency Program Director (if RPD is not one of the preceptor references listed above).

Planned Program Structure:

- Orientation and Training (2 - 4 weeks of orientation/training (duration determined by the resident's previous experience)
- Required Learning Experiences (duration determined by the resident's previous experience and goals, may be extended to account for blocks with holidays).
    - General Infectious Diseases (ID) (4 - 5 weeks)
    - Antimicrobial Stewardship (4 – 5 weeks)
    - Inpatient HIV (4 weeks)
    - Hematology/Oncology/BMT ID (6 weeks)
    - Solid Organ Transplant (SOT) / Ventricular Assist Device (VAD) ID (6 weeks)
    - Foundations in microbiology laboratory (3 weeks, determined by laboratory availability and resident goals)
    - Advanced Antimicrobial Stewardship (4 – 5 weeks)
    - Advanced Infectious Diseases (4 – 5 weeks)
- Teaching – ID/Therapeutics Workshop (Required, Longitudinal 10 weeks, half-day every Wednesday)
- Staffing (Required, Longitudinal): 16 weekends over 12 months, includes one minor and one major holiday. Staffing shifts are 8 hours or 10 hours in duration depending on the shift assignment.
    - *Learning Experience is divided in 6-month longitudinal blocks such that the resident completes half of the required weekends in Hillcrest and the other half in La Jolla. Each 6-month block will be precepted by respective pharmacist/manager the respective site. Staffing training will be scheduled prior to the site change based on the resident's previous experience.*
        - Staffing Hillcrest (6 months) (ie. first half of residency, quarters 1 - 2)
        - Staffing La Jolla (6 months) (ie.. second half of residency, quarters 3 – 4)
- Resident Project (Research Project) (Required, Longitudinal, 12 months)
  Research/ Project time is distributed throughout the residency year ((half-day every other week or blocks of 1-3 days)
    - Includes participation in Research Primer Series if not previously completed as PGY1
- Practice Management & Antimicrobial Stewardship (Required, Longitudinal) (12 months)
  Project/research time is distributed throughout the residency year (half-day every other week or blocks of 1-3 days)
    - Committee Participation and Involvement: Antimicrobial Stewardship Program, Antimicrobial Utilization Committee (meets ~ 1x quarterly), Infection Control Committee (1st Wednesday, Quarterly), and at least two Pharmacy and Therapeutics (P&T) Committee Meetings
    - Participation in the UC-Wide ID/ASP Collaborative and the UC-Wide ID Resident Network
    - Practice Management / Quality Improvement (Medication Utilization Evaluation (MUE), Orderset/ Monograph/ Guideline)
    - Infectious Diseases Appendix
    - Completion of competencies as assigned and required by department
    - Effective Education / Teaching / Presentations
        - Grand Rounds (1 required)
        - Journal Club Presentation (at least 2 required)
        - Presentations to health care professionals or those in training (e.g. Pharmacy Clinical Forum, Infectious Disease Grand Case Conference) (at least 3 required)
        - In-services (at least 2 required)
        - Preparation of manuscript suitable for publication
- Elective – Learning experiences (choose two (2) elective experiences, 4 weeks each)
    - See list below

Required Learning Experiences:

PGY2 residents will gain the skills necessary to function as the primary ID/ASP pharmacist during their required learning experiences with the expectation that the resident will embrace the concept that ID/ASP pharmacists share in the responsibility and accountability for optimal drug therapy outcomes; participating, coordinating and/or handling all aspects of the antimicrobial medication process from culture/microbiologic identification/testing ordering to follow-up to auditing/feedback and reporting on quality metrics. The resident will be expected to build relationships within the interdisciplinary medical team, working proactively with a variety of disciplines (nurses, microbiologists, case managers, social workers, physicians and physician extenders, and learners) to achieve efficacy and safety and optimal antimicrobial medication therapy and outcomes. Depending on the core rotation, daily activities may include but are not limited to: attending daily multidisciplinary rounds on ID, serving as the first point of contact for ID pharmacy questions from students, residents (medical and pharmacy), pharmacists and ID fellows and ID attendings in a layered learning model,

collaborating with physicians and other health care providers to discuss optimal pharmacotherapy, participating in patient education/consultation, performing pharmacokinetic monitoring on therapeutically monitored drugs, antimicrobial stewardship audit and feedback, participation in the set-up or optimization of antimicrobial medication orders/ ordersets/ guidelines and overseeing and directing PGY1 resident and pharmacy student activities. The interdisciplinary aspects of these required experiences prepare residents for any type of practice environment they may encounter in their future jobs by emphasizing the development of essential skills required for an advanced pharmacy practitioner including independent practice skills, proficiency in communication, leadership, ability to multi-task and prioritize duties and responsibilities.

Elective Learning Experiences:
The resident will have an opportunity to choose from 2 elective learning experiences (of 4 weeks in duration). The resident may choose to repeat a required rotation at a more advanced level (i.e Hematology/Oncology/BMT ID). Electives can be selected from the list below and there will also be opportunities to develop new elective learning experiences. The primary focus during these elective rotations would be the infectious diseases and antimicrobial stewardship associated with these patient populations.

- Elective - Antiretroviral Clinic
- Elective - Investigational Drug Service
- Elective - Cystic Fibrosis

Staffing:
Staffing will be incorporated into the residency experience with weekend shifts that provide the opportunity for PGY2 residents at UCSDH. The PGY2 resident will be required to staff 16 weekends (which includes 1 minor holiday weekend PLUS 1 major holiday (Thanksgiving, Christmas, or New Year's)). To help provide more formative feedback, residents are expected to seek feedback from at least one staff member each weekend they staff. The feedback will be solicited via an online survey which can be found on the Pharmacy intranet page.

Residency Project (Research Project):
The resident will be responsible for conducting a resident project throughout the academic year that will be completed and presented at the UC Collaborative Annual Pharmacy Leadership Conference, or an equivalent conference. A Resident Research Primer Course has been developed by the UC San Diego Health Research Council to coach residents through the various aspects of the research process. PGY2 infectious diseases residents who have not previously completed the Research Primer Course are required to attend. PGY2 infectious diseases residents who have previously completed the Research Primer Course will required to attend some, but not all, meetings. They will be required to complete all competencies. Passing competency score is 80%.

More information can be found in the Resident Manual. If time allows, the resident will be involved with the initiation of a second project. This initiation phase will involve defining the study design, writing up the protocol and beginning the IRB approval phase. This will facilitate subsequent infectious diseases residents who can then finish the projects that were started the previous year.

Research time will be given during the resident year. During allocated research/project days, the resident is expected to be onsite for at least 8 hours daily; preferably between 6:00 am and 6:00 pm. Any excursions from this time must be discussed and approved by RPD prior to the day.

> **Local/Regional/National Meetings:** The resident can attend a specialty meeting (e.g. IDWeek (IDSA), MAD-ID, Infectious Diseases Association of California (IDAC) Symposia) if it is of interest. The resident will present their research project at the UC Collaborative Annual Pharmacy Leadership Conference (or an equivalent conference).

Practice Management and Antimicrobial Stewardship:
The PGY2 resident will track their progress and development in the areas of ongoing antimicrobial stewardship initiatives, practice management, clinical quality improvement projects (if not part of a year-long resident project), medication use evaluation, orderset review (and/or formulary monograph), and effective education or training to health care professionals or those in training through this longitudinal experience. Quarterly, the RPD and resident will complete a summative evaluation via PharmAcademic and update the resident's customized training plan, as needed. Items which are included and evaluated in this longitudinal rotation include committee participation (Antimicrobial Utilization Committee, Infection Control Committee), Quality improvement opportunities (orderset or guideline creation or review), and the resident's

progress covering disease states listed in the ID Appendix and associated with the ASHP supplemental standard for an Advanced Practice Residency in Infectious Diseases.

Practice Management: The resident will be required to complete quality improvement projects focused on Antimicrobial Stewardship or Infectious Diseases. Through these projects, the resident is expected to develop and demonstrate effective project management, time management, and interdisciplinary collaboration skills. Specifically, the resident will be responsible for the planning and execution of the following:

(1) a formulary monograph, drug class review or formulary modification,
(2) an order set review or guideline development/update, and
(3) a medication use evaluation

Committee Participation/Meetings:
The resident will be required to participate in committees relevant to ID/ASP patient management at UCSDH in a longitudinal manner. These committees include participation in weekly Antimicrobial Stewardship Program team meetings, Antimicrobial Utilization Committee meetings (meets at least 1x quarterly), Infection Control Committee (at least quarterly), and at least two Pharmacy and Therapeutics (P&T) Committee Meetings. These committees review antimicrobial use, ASP processes, and collaborate with multidisciplinary team members to strive to find ways to optimize efficacy and safety of antimicrobial use at UCSDH. The resident will be an active participant through meeting attendance, and presentation and discussion of practice management initiatives. The resident will also participate actively in the UC-Wide ID/ASP Collaborative (meetings every other month) and UC-Wide ID Resident Network.

Infectious Diseases Appendix:
The resident's progress in covering disease states listed in the Infectious Diseases Appendix (topics listed individually in learning experience descriptions) will be tracked through attestation during core, longitudinal or elective learning experiences and quarterly in the customized training plan.

Required Competencies:
The resident functions as a licensed pharmacist in patient care activities. Completion of competencies as assigned and required by the pharmacy department and expected of all clinical pharmacists.

Effective Education:
Effective education opportunities which will be evaluated will include grand rounds, presentations to health care professionals or those in training (e.g. Pharmacy Clinical Forum, Infectious Disease Case Conference Grand Rounds) (at least 3 required), didactic forums or in-services, journal clubs (at least 2 required during residency) and teaching opportunities (SSPPS Therapeutics Conference Leader [required] and Didactic lecture [optional] of an Infectious Diseases related topic at SSPPS).

Grand Rounds: The resident will deliver a 1-hour CE lecture to the pharmacy staff regarding a controversial topic in infectious diseases. Please refer to the Residency Manual for more information on timelines, expectations and evaluation strategies. An on-demand PharmAcademic evaluation will be used to track Grand Rounds completion. Progression towards completion of graduation requirements will be tracked via the Effective Education PharmAcademic evaluation, customized training plan, and/or via discussion with preceptors at RAC meetings.

Journal Clubs: Residents are required to present **at least two (2)** formal journal club presentations during the year. Journal Club topics should be focus on critically analyzing a recently published journal article related to ID pharmacotherapy or Antimicrobial Stewardship. Presented journal clubs must be presented to the project preceptor at least one week in advance for feedback and comments. Failure to do so will result in delay of the presentation. An on-demand PharmAcademic evaluation by the RPD, learning experience preceptor, or clinical preceptor will be used to track Journal Clubs. Progression towards completion of graduation requirements will be tracked via the On Demand Feedback, customized training plan, and/or via discussion with preceptors at RAC meetings.

Presentations to health care professionals and those in training: The resident is required to present **at least three (3)** presentations to health care professionals and those in training (e.g. Pharmacy Clinical Forum, Infectious Disease Grand Rounds) that are separate from learning experience-related presentations. Clinical Forums are typically clinically focused 20- minute presentations based on a recent patient case or pertinent topic. The resident is encouraged to discuss topics related to the ASHP supplemental Appendix for an Advanced Practice Residency in Infectious Diseases for those

presentations. All topics and presentations should be presented to the project preceptor at least 1 week in advance for feedback and comments. An on-demand PharmAcademic evaluation will be used to track Clinical Forums and Journal Clubs. Progression towards completion of graduation requirements will be tracked via On Demand Feedback, customized training plan, and/or via discussion with preceptors at RAC meetings.

In-Services: The resident is required to **conduct two (2) in-services** during the residency year. The remaining in-services can target an audience of the resident's choosing. The resident is expected to be proactive in determining the need for focused in-services as well as facilitating topics and logistics related to the in-service over the course of the residency year.

Teaching - Skaggs School of Pharmacy and Pharmaceutical Sciences: the resident will participate in Therapeutics Course ID Case Conferences as a conference leader for SSPPS Third year Pharmacy Students [required]. There will also be an opportunity to provide didactic lecture(s) [optional] on an Infectious Disease related topic, and may include preparing the lecture syllabus and exam questions and working with a SSPPS Faculty Member. Direct student precepting would occur while on learning experiences with UC San Diego pharmacy students jointly with the preceptor and direct precepting of PGY1 residents on rotation. Progression towards completion of graduation requirements will be tracked via the PharmAcademic evaluations, customized training plan, and/or via discussion with preceptors at RAC meetings.

Teaching Certificate: Participation in the Teaching Certificate program is optional if completed as a PGY1 and will be discussed on a case-by-case basis. Please refer to the Residency Manual for more information on these topics. If the resident elects to complete the Teaching Certificate, the RPD will work with the PGY1 RPD to add the resident to expected events.

Manuscript Suitable for Publication: The resident will be required to write a manuscript suitable for publication by the end of their residency year. The purpose of this requirement will be the development of scientific writing and communication skills. The types of publishable literature can include any of the following types of manuscripts: Case Reports with a review of relevant literature, primary research/original research, Medication Use Evaluation, meta-analysis of a disease state or therapy, review article

NOTE: Any activities in which artificial intelligence/machine learning are to be used should be addressed with preceptor(s) and RPD prior to use and may also need discussion with Residency Executive Committee and Pharmacy Chief. Failure to do so may result in disciplinary action.

Assessment Strategy – PharmAcademic:

The PGY2 Infectious Diseases Specialty Residency Program uses the ASHP on-line evaluation tool called PharmAcademic, which is available for all ASHP-accredited pharmacy residency programs. Residents who are matched with this PGY2 specialty program are entered into PharmAcademic prior to their arrival in August. The incoming resident completes a self-evaluation to assist in the design of a residency year that is tailored to the specific needs and interests of the resident.

Residents' schedules and assigned goals and objectives are entered into PharmAcademic. We have chosen to use the PharmAcademic evaluation tools for our Learning Experiences. For each Learning experience, the following Assessments are completed:

- Preceptor Assessment of Resident: Summative (for each Learning experience)
- Resident Assessment of the Learning Experience
    - Resident assessment of Preceptor
    - Resident assessment of Learning Experience
- Resident Self-Assessment: Summative-self, if scheduled by preceptor for a learning experience

Preceptors and residents are encouraged to exchange in on-going, daily verbal feedback throughout each rotation (learning experience). Six-week block rotations have a mid-point summative evaluation as well. The Resident and Preceptors are trained and reminded throughout the year to complete evaluations in a thorough (quantitatively and qualitatively) and timely manner. To this end, evaluations may be used, not only as assessment tools, but as tools that Preceptors may turn to for help in guiding Residents to improve, grow and achieve the residency programs and the residents' goals and objectives for the residency year. The RPD reviews all evaluations and solicits verbal feedback from preceptors and residents to provide guidance to help the resident maximize the residency experience.

The resident will discuss individualized program goals and interests on a quarterly basis (Quarterly Update and Customized Training Plan) with the RPD to evaluate where they are in meeting the residency goals and to set or modify goals for the remainder of the residency program. The resident may request to meet with the RPD outside of this quarterly meeting, as needed, if their interests change throughout the year. The resident may request schedule modifications throughout the residency year and the RPD will make all efforts to accommodate these requests. Assessment tools will be adjusted as changes are made.

The resident will be expected complete all relevant exit evaluations as well as a year-long evaluation of the residency program. The results of these year-end Program evaluations are reviewed by the RPD and Residency Advisory Committee (RAC) representatives for potential merit and potential action plans are developed in an effort to achieve continuous quality improvement.

Assessment Overview (PGY2 Infectious Diseases)

It is the resident's responsibility to initiate the evaluation process with each learning experience preceptor prior to the end of each learning experience and to schedule at least quarterly meetings with the residency director.

Learning Experience	Frequency	Preceptor Assessment of Resident (summative)	Resident Assessment of Preceptor & Experience	On-demand Feedback via Pharm Academic
Orientation	Per learning experience	✓	✓	
Required LE	Per learning experience	✓	✓	
Elective LE	Per learning experience	✓	✓	
Grand Rounds	Per experience			✓
Presentations to health care professionals and those in training	Per experience			✓
Journal Club	Per experience			✓
Research	Quarterly	✓		
	End		✓	
Staffing	Quarterly	✓		
	End		✓	
Practice Management & Antimicrobial Stewardship	Quarterly	✓		
	End		✓	
Program Evaluation	3rd quarter residency			✓

* On-demand evaluations may be requested after inservices or presentations at required meetings. Intermittent on-demand evaluations may continually track progress of the ongoing projects. Feedback will also be provided via PharmAcademic

PGY2 Infectious Diseases Competency Areas, Goals and Objectives:

- Educational Outcome: broad categories of the residency graduates' capabilities.
  - Outcome R1: Patient Care
  - Outcome R2: Advancing Practice and Improving Patient Care
  - Outcome R3: Leadership and Management
  - Outcome R4: Teaching, Education, and Dissemination of Knowledge
- Educational Goals: Goals listed under each outcome are broad sweeping statements of abilities.
- Educational Objectives: Resident achievement of educational goals is determined by assessment of the resident's ability to perform the associated educational objective below each educational goal.
- The resident is encouraged to read detailed information about each goal at the ASHP website under Required Competency Areas, Goals and Objectives for Postgraduate Year Two (PGY2) Infectious Diseases Pharmacy Residencies (2017).
- For information about Goals and Objectives Taught/Taught and Evaluated in Learning Experiences, please visiting PharmAcademic, go the 'Reports' tab, and click on 'Goals and Objectives Taught/Taught and Evaluated in Learning Experiences'.

PGY2 Infectious Residency Requirements for Completion/Graduation:

Completion Requirements – Please check all that apply to the resident	
Learning Experiences/Staffing Requirements ☒ Complete all evaluations in PharmAcademic ☒ Successful completion of all learning experiences and a minimum of 90% of residency required objectives marked as Achieved for Residency (ACHR) with 100% marked as ACHR in Competency Area R1* ☒ Disease state appendix ☒ Staffing (_16__ weekends/year) ☐ On-call (_____ weekends/year)	
Residency Project ☒ Project Plan ☒ Abstract at _conference of choice_ ☐ Poster at _optional_ ☒ Research Primer Course	☒ Platform Presentation at _conference of choice_ ☒ Final Manuscript ☐ Qualtrics Resident Research Project closeout form ☐ Other (please specify):
Leadership and Practice Management ☐ M&M qty:_____ ☒ MUE (including project plan and write up) qty: _1___ ☒ Orderset review - qty: _1 (or guideline)_ ☒ Monograph/Drug Class Review - qty:_1_ ☒ Committee(s) Participation: AUC, ASP (i.e. Weekly Mtgs), and IPCE, P&T, UC Collab/IDRN as applicable	☒ Other (please specify):UCSDH & Dept Competencies ☐ Other (please specify): ☐ Other (please specify): ☐ Other (please specify): ☐ Other (please specify):
Teaching Certificate/Educational Requirements ☐ Teaching Philosophy initial and final ☐ Small Group Teaching (minimum 5 for Teaching Certificate) ☐ Attend/Complete all required SDPRL assignments ☐ Didactic Lecture (please specify):_option if available_ ☐ SSPPS OSCE - qty: _____ ☐ Teaching Certificate Program Conferences ☐ Publication Submission ☐ Other (please specify): ☐ Other (please specify):	☒ Grand Rounds ☒ Clinical Forum - qty: 3 (presentations to health care professionals) ☒ Journal Club - qty:_2_ ☐ RN in-service - qty: _____ ☐ MD in-service - qty: _____ ☒ In-service to audience of choice - qty: _at least 2_ ☐ Tech-talk - qty: _____ ☒ Teaching Opportunity: Therapeutics Conf Leader ☐ Other (please specify): ☐ Other (please specify):

*Successful completion is defined as all learning experience objectives marked satisfactory progress (SP), achieved (ACH) or achieved for residency (ACHR) by the final evaluation of the learning experience.

Appendix G: Internal Medicine

PGY2 Internal Medicine Pharmacy Residency Program Overview
National Matching Service Code: **772256**
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/programs/internal-medicine/

The UC San Diego Health Department of Pharmacy offers a one-year specialty residency in internal medicine pharmacy practice beginning either the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule and upon licensure in California (see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Scope:

UC San Diego Health (UCSDH) consists of three hospitals (UC San Diego Medical Center in Hillcrest, the La Jolla Campus consisting of Jacobs Medical Center which includes the John M. and Sally B. Thornton Pavilion and Sulpizio Cardiovascular Center, and East Campus) and associated outpatient clinics. UCSDH is also affiliated with Rady Children's Hospital-San Diego, the Veterans Affairs San Diego Healthcare System, and the Sharp Memorial Hospital Joint Blood and Marrow Transplant Program. UCSDH is affiliated with the UC San Diego School of Medicine and the UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS). The Department of Pharmacy provides clinical services in both the inpatient and outpatient setting to a broad spectrum of patient populations including internal medicine, surgery, cardiology, oncology, solid organ transplant, bone marrow transplant, infectious diseases, nephrology, cystic fibrosis, pulmonary hypertension and HIV/AIDS.

This residency balances the provision of direct patient care to internal medicine patients in both the inpatient and ambulatory care setting as well as opportunities to incorporate transitions of care (TOC) services to new or previously established services. This program offers a wide variety of established electives such as adult medicine, cardiology, infectious disease, transplant, oncology, and psychology. There are many research and teaching opportunities that can be tailored to the resident's interest.

Program Purpose:

PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions, and board certification in the advanced practice area, if available.

Program Description:

UCSDH is a university-affiliated teaching hospital which provides the unique capability to engage each of our residents in direct patient care activities, research, administration and project management, and teaching. PGY2 Internal Medicine residents will gain the skills necessary to function as the primary internal medicine pharmacist during their required internal medicine learning experiences, with the expectation that the resident will manage all aspects of the medication process as well as the facilitation of safe and effective discharges. Outside of the core internal medicine learning experiences, other learning experiences will be required to broaden the resident's experiences and scope of practice (i.e. continuation of care transitions, management of patient populations at high risk for readmission (advanced heart failure, cardiology, HIV/ID) and management of critically ill patients).

Primary clinical responsibilities will include rounding with assigned teams, validating pharmacy orders, performing pharmacokinetic monitoring, as well as designing, recommending, monitoring, and evaluating patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine. When opportunities are available, the resident will also be expected to assume oversight and responsibility for pharmacy trainees (including fourth-year pharmacy students and PGY1 pharmacy residents). Additionally, residents will assume responsibility for all medication management activities for their service, including transitions between different areas or levels of care. The resident will become proficient at resolving medication system issues when appropriate to ensure safe transition to community pharmacies and providers. The resident will also become skilled in providing education to multiple audiences: patients, caregivers, providers, and other members of the multidisciplinary health care team.

Teaching activities may include presentations (grand rounds, clinical forums, journal clubs, topic discussions, etc.), involvement with UC San Diego SSPPS courses (e.g. conference leader for therapeutics course), and clerkship preceptorship of PGY1 pharmacy practice residents and fourth-year pharmacy students on clinical rotations. The ability to work independently and to supervise pharmacy students and residents will be emphasized. The resident will also be involved in a research project where scientific writing is strongly emphasized, and the preparation of a manuscript suitable for publication will be expected.

Number of residency positions available: 1

Resident Pay and Benefits: Refer to UC San Diego Health Pharmacy Residency website (https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/) for details on salary and benefits

Requirements of Residents Prior to Starting the Program:
(see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here))

Application:
Each year, the RPD will determine if UCSDH will participate in early commitment and/or go through the nationwide resident matching program. If RPD selects to early commit, UC SWEC PGY2 Residency Program Policy and Procedures will be followed (see Appendix P).

Applications for ASHP Match should include the following:
All applicants must be enrolled in the Resident Matching Program. To facilitate this enrollment process and for further information, please visit the following website: http://www.natmatch.com/ashprmp. Applications will be accepted when PhORCAS opens and are due by January 2nd.

1. Letter of intent
    a. Please address your vision of an internal medicine pharmacist practicing at the top of their license and your own personal goals
2. Current *Curriculum Vitae* with all experientials completed and anticipated rotations as well as pharmacy work experience.
3. Three electronic references are required from preceptors who can directly comment on your clinical and practice skills.
    a. **Note**: Please have recommendation writers complete the electronic reference form within PhORCAS with detailed characteristic and narrative comments. One to two areas of improvement or constructive feedback that the recommender feels the candidate should continue to work on as a PGY2 resident should be identified. A separate letter of recommendation is NOT required and discouraged.
4. Letter of endorsement from PGY1 Residency Program Director (if RPD is not one of the three preceptors references mentioned above)
5. Complete the online supplemental application https://ucsd.co1.qualtrics.com/jfe/form/SV_23Ma2f6yreKYBZc

Interviews will be held during late January-February.

Program Structure:

- 2-4 weeks of Orientation (duration determined by the resident's previous experience)
- Required learning experiences: (4 weeks each, may be extended to account for blocks with holidays)
  - Internal Medicine Hillcrest
  - Internal Medicine La Jolla
  - Internal Medicine Heme/Onc
  - Family Medicine
  - Advanced Heart Failure/Transitions of Care
  - HIV & Infectious Disease
  - Cardiovascular Intensive Care Unit
- Longitudinal learning experiences (half-day per week block, day of the week will be determined by the experience availability)
  - Therapeutics Conference (10 weeks)
  - Elective learning experiences: (3 Blocks, 4 weeks each)
  - See full list below
- Staffing (Operations & Transitions of Care; 16 weekends over 52 weeks)
  - Staffing shifts are 8-hour or 10-hour depending on the shift assignment
- Residency Research Project (Longitudinal, 12 months)
  - Includes participation in Research Primer Series
- Practice Management and Education (Longitudinal, 12 months)
  - Committee Participation (alternate MERP La Jolla 6 months and MERP Hillcrest 6 months)
  - Practice Management (MUE, order set review, monograph/drug class review)
  - Internal Medicine Appendix
- Effective Education (Longitudinal, 12 months)
  - Journal club presentations (3 required, may choose to facilitate PGY1 journal club or present at ACCP Internal Medicine Journal Club for one of the three)
  - Clinical forum presentation (3 required)
  - In-service (3 required, nursing, provider/MD, and to Anticoagulation Subcommittee Literature review)
  - Grand Rounds (1 required, may be completed with co-resident)

Required Learning Experiences:
Descriptions of each learning experience can be found in PharmAcademic.

PGY2 residents will gain the skills necessary to function as the primary internal medicine pharmacist during their required internal medicine learning experiences as well as the primary pharmacist within the other core learning experiences. The resident will also be expected to handle all aspects of medication management from admission through discharge (and beyond when applicable). The resident will be expected to build relationships with each interdisciplinary team in a variety of settings and to work proactively with nurses, case managers, social workers, physicians and physician extenders to help manage patients during hospital admission and to successfully transition patients from the hospital to the home or other healthcare setting. Daily activities will include attending daily multidisciplinary rounds, managing patients across the continuum of care, performing medication reconciliation at both admission and discharge, collaborating with physicians and other health care providers to discuss optimal pharmacotherapy, participating in patient education/consultation, performing pharmacokinetic monitoring on all therapeutically monitored drugs, and overseeing and directing PGY1 resident and pharmacy student activities. This integration of staffing and clinical services prepares residents for any type of practice environment they may encounter in their future jobs by emphasizing the development of essential skills required for an advanced pharmacy practitioner including independent practice skills as well as the ability to multi-task and prioritize duties and responsibilities.

Elective Learning Experiences:
Descriptions of each learning experience can be found in PharmAcademic.

There are a variety of elective learning experiences from which the resident can choose. This will allow the resident the flexibility to tailor their PGY2 experience to an area of interest. Elective learning experiences will

generally be scheduled in the second half of the residency year (after the majority of the required rotations are successfully completed). Electives can be selected from the list below and there will also be opportunities to develop new elective learning experiences:

- Abdominal Transplant Clinic
- Abdominal Transplant Inpatient
- Adult Inpatient Psychiatry
- Cardiology Transitions of Care
- Cardiothoracic Transplant Inpatient
- Emergency Medicine
- HIV/Owen Clinic
- Infectious Disease
- Medical Intensive Care
- Neonatal Intensive Care Unit (NICU)
- Neurological Critical Care
- Oncology Infusion Center
- Pharmacy Informatics
- Pulmonary Hypertension
- Pulmonary Intensive Care Unit

Staffing:
Staffing will be incorporated into the residency experience with weekend shifts that provides the opportunity for PGY2 residents to staff transitions of care shifts as well as traditional inpatient weekend shifts. The PGY2 residents will be required to staff 16 weekends (9 weekends of TOC staffing and 7 weekends of inpatient traditional/operations staffing), which includes 1 minor holiday weekend AND 1 major holiday (Thanksgiving, Christmas, or New Year's). To help provide more formative feedback during the inpatient weekend staffing, residents are expected to seek feedback from at least one staff member each weekend they staff. The feedback will be solicited via an online survey which can be found on the Pharmacy's intranet page.

Research Project:
The resident will be responsible for conducting a research project throughout the academic year that will be completed and presented at the UC Collaborative Annual Pharmacy Leadership Conference or an equivalent conference. Upon completion of the residency year, a project plan, abstract, platform presentation and manuscript will be submitted as part of the research project. A Resident Research Primer Course has been developed by the UC San Diego Health Research Council to coach residents through the various aspects of the research process. PGY2 internal medicine residents who have not previously completed the Research Primer Course are required to attend. PGY2 internal medicine residents who have previously completed the Research Primer Course will be required to attend some, but not all, meetings. They will be required to complete all competencies. Passing competency score is 80%.

More information can be found in the Residency Manual. If time allows or if residents received an already IRB-approved research project, the resident will be involved with the initiation of a second project. This initiation phase will involve defining the study design, writing up the protocol and beginning the IRB approval phase. This will facilitate subsequent internal medicine residents who can then finish the projects that were started the previous year.

Research time will be given during the resident year. During research weeks, the resident is expected to work for at least 8 hours daily; preferably between 6:00 am and 6:00 pm. Any excursions from this time must be discussed and approved by RPD prior to the day.

Practice Management: The PGY2 resident will track their progress and development in the areas practice management, medication use evaluation, order set review, drug class review or formulary monograph, and effective education through this longitudinal experience. Quarterly, the RPD and resident will complete a summative evaluation via PharmAcademic and update the resident's customized training plan to track the resident's progress. Items which are included and evaluated in this longitudinal rotation include:

- **Committee Participation:** The resident will be required to participate in Medication Error Reduction Plan (MERP) Committee (6 months in La Jolla and 6 months in Hillcrest). The committee review medication use and strive to find ways to reduce errors at UCSDH. The resident will work with the pharmacist assigned to that committee to be an active participant through meeting attendance and investigating medication related events and solutions.

- **Practice Management:** The resident will be required to complete a formulary monograph or drug class review, an order set review, and a medication use evaluation. Residents may collaborate with the other internal medicine resident for completion.

- **Internal Medicine Appendix:** The resident's progress in covering disease states listed in the Appendix (topics listed individually in learning experience descriptions) will be tracked through provided check-list and quarterly in the customized training plan.

Effective Education: The resident will have opportunities to provide effective education through presentation of grand rounds (1 required during residency, may be done with co-resident), clinical forums (3 required during residency), journal clubs (3 required during residency), in-services (3 required during residency), through leading Therapeutic Conferences and development of a manuscript for publication.

- **Grand Rounds**: The resident will deliver a 1-hour CE lecture to the pharmacy staff regarding a topic in internal medicine. This presentation may be made in collaboration with their PGY2 Internal Medicine Pharmacy co-resident, with each resident presenting approximately 30 minutes of material. Please refer to the Residency Manual for more information on timelines, expectations, and evaluation strategies.

- **Clinical Forums:** Residents are required to present three clinical forums during the year at our Pharmacy Clinical Forum. Clinical Forums are clinically focused; 20-minute presentations based on a recent patient case. The resident is encouraged to discuss topics related to the ASHP Supplemental Appendix. All Clinical Forum presentations need to be presented to the project preceptor at least one week in advance for feedback and comments. Failure to do so will result in a delay in the presentation. Please refer to the residency manual for more information and evaluation strategies.

- **Journal Clubs:** Residents are required to present three journal club presentations during the year. Journal Club topics should be focus on critically analyzing a recently published journal article related to critical care pharmacotherapy. The resident may choose to facilitate a PGY1 journal club or present at ACCP Internal Medicine Journal Club for one of the three required journal club presentations. Presented journal clubs must be presented to the project preceptor at least one week in advance for feedback and comments. Failure to do so will result in delay of the presentation. For facilitation, the resident assumes the role of the clinical preceptor and should critically analyze the article, coach the PGY1 resident through their analysis, and facilitate the discussion on the day of the presentation. Facilitators should provide feedback on their analysis and thoughts of the PGY1 one week prior to their presentation. Please refer to the residency manual for more information and evaluation strategies.

- **In-Services**: The resident is required to conduct three in-services during the residency year with one focused on nursing staff and one focused on providers. The remaining in-service will be a literature-based presentation to a multidisciplinary team at the Anticoagulation Subcommittee. The resident is expected to be proactive in determining the need for focused in-services as well as facilitating topics and logistics related to the in-service over the course of the residency year.

- **Teaching - Skaggs School of Pharmacy and Pharmaceutical Sciences:** Involvement with the UC San Diego SSPPS will vary but the resident is required to participate as a conference leader for one of the therapeutic conferences. The resident may be asked to write up cases for the therapeutics conference based on real patient cases. Residents will also have multiple opportunities to directly precept students who are on the same learning experience as the resident.

- **Teaching Certificate:**
- Participation in the Teaching Certificate program is required unless resident has completed a teaching certificate program during his/her PGY1 and will be discussed on a case-by-case basis. Please refer to the Residency Manual for more information on these topics. If the resident elects to complete the Teaching Certificate, the RPD will work with the PGY1 RPD to add the resident to expected events.

Assessment Strategy – PharmAcademic:

The program uses the ASHP online evaluation tool called PharmAcademic, which is available for all ASHP-accredited pharmacy residency programs. Residents who are matched with this PGY2 specialty program are entered into PharmAcademic prior to their anticipated start date. The incoming resident will complete a Self-Assessment as established by ASHP.

Residents' schedules and assigned objectives are entered into PharmAcademic. We have chosen to use the PharmAcademic evaluation tools for our Learning Experiences. For each Learning Experience, the following Assessments are completed:

- Preceptor Assessment of Resident: Summative
- Resident Assessment of the Learning Experience
    - Resident assessment of Preceptor
    - Resident assessment of Learning Experience

Preceptors and residents are encouraged to exchange ongoing, daily, verbal feedback throughout each learning experience. The resident and preceptors are trained and reminded throughout the year to complete evaluations in a thorough (quantitatively and qualitatively) and timely manner. To this end, evaluations may be used, not only as assessment tools, but as tools that preceptors may turn to for help in guiding residents to improve, grow and achieve both the residency programs' and the residents' goals and objectives for the residency year. The RPD reviews all evaluations and solicits feedback from preceptors and residents to provide guidance to help the resident maximize the residency experience.

The resident will discuss individualized program goals and interests on a quarterly basis (Development Plans) with the RPD to evaluate where they are in meeting the residency goals and to set or modify goals for the remainder of the residency program. The resident may request to meet with the RPD outside of this quarterly meeting, as needed, if their interests change throughout the year. The resident may request to schedule modifications throughout the residency year and the RPD will make all efforts to accommodate these requests. Assessment tools will be adjusted as changes are made.

The resident will be expected to complete all the exit evaluations as well as a year-long evaluation of the residency program. The results of these year-end program evaluations are reviewed by the RPD and internal medicine Residency Advisory Committee (RAC) for merit and the potential development of action plans to achieve continuous quality improvement.

Assessment Overview (PGY2 Internal Medicine)

It is the resident's responsibility to initiate the evaluation process with each rotation preceptor prior to the end of each learning experience

PGY2 **Internal**

	Frequency	Summative Evaluation by Preceptor	Preceptor Evaluation (Resident)	Learning Experience Evaluation (resident)
Orientation / Training	End of Learning Experience	X	X	X
Required Learning Experience	End of Learning Experience	X	X	X
Elective Learning Experience	End of Learning Experience	X	X	X
Practice Management and Education	Quarterly	X		
	End of Learning Experience	X	X	X
Therapeutics Conference	Midpoint	X		
	End of Learning Experience	X	X	X
Research	Quarterly	X		
	End of Learning Experience	X	X	X
Staffing	Quarterly	X		
	End of Learning Experience	X	X	X

Medicine Competency Areas, Goals and Objectives (2017 Standard):

- Competency Areas: Categories of the residency graduates' capabilities.
  - Competency Area R1: Patient Care
  - Competency Area R2: Advancing Practice and Improving Patient Care
  - Competency Area R3: Leadership and Management
  - Competency Area R4: Teaching, Education, and Dissemination of Knowledge
- Educational Goals: Broad statement of abilities.
- Educational Objectives: Observable, measurable statements describing what residents will be able to do as a result of participating in the residency program.
- The resident is encouraged to read detailed information about each goal at the ASHP website (click on "Internal Medicine Pharmacy – Effective 2017"). https://www.ashp.org/professional-development/residency-information/residency-program-resources/residency-accreditation/pgy2-competency-areas
- For information about Goals and Objectives Taught/Taught and Evaluated in Learning Experiences, visit PharmAcademic, go the 'Reports' tab, and click on 'Goals and Objectives Taught/Taught and Evaluated in Learning Experiences'.

PGY2 Internal Medicine Residency Requirements for Completion:

Completion Requirements – Please check all that apply to the resident	
Learning Experiences/Staffing Requirements	
☒ Complete all evaluations in PharmAcademic	
☒ Successful completion of all learning experiences and a minimum of 90% of residency required objectives marked as Achieved for Residency (ACHR) with 100% marked as ACHR in Competency Area R1*	
☒ Disease state appendix	
☒ Staffing (___16__ weekends/year)	
☐ On-call (_____ weekends/year)	
Residency Project	
☒ Project Plan	☒ Platform Presentation at _ conference of choice ____
☒ Abstract at _ conference of choice _____	☒ Final Manuscript
☐ Poster at _ conference of choice _____	☐ Qualtrics Resident Research Project closeout form
☒ Research Primer Course	☐ Other (please specify):
Leadership and Practice Management	
☐ M&M qty: _____	☐ Other (please specify):
☒ MUE (including project plan and write up) qty: 1___	☐ Other (please specify):
☒ Orderset review - qty: 1_____	☐ Other (please specify):
☒ Monograph/Drug Class Review - qty: 1_____	☐ Other (please specify):
☒ Committee(s) Participation (please specify): MERP	☐ Other (please specify):
Teaching Certificate/Educational Requirements	
☐ Teaching Philosophy initial and final	☒ Grand Rounds
☐ Small Group Teaching (minimum 5 for Teaching Certificate)	☒ Clinical Forum - qty: 3_____
	☒ Journal Club - qty: 3_____
☐ Attend/Complete all required SDPRL assignments	☒ RN in-service - qty: 1_____
☐ Didactic Lecture (please specify):_____	☒ MD in-service - qty: 1_____
☐ SSPPS OSCE - qty: _____	☐ In-service to audience of choice - qty: 1_____
☐ Teaching Certificate Program Conferences	☐ Tech-talk - qty: _____
☐ Publication Submission	☒ Teaching Opportunity (please specify): therapeutic conference
☐ Other (please specify):	
☐ Other (please specify):	☒ Other (please specify): Inservice to anticoag subcommittee

*Successful completion is defined as all learning experience objectives marked satisfactory progress (SP), achieved (ACH) or achieved for residency (ACHR) by the final evaluation of the learning experience.

Appendix H: Oncology

PGY2 Oncology Pharmacy Residency Program Overview

National Matching Service Code: 619860
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/programs/oncology/

The UC San Diego Health (UCSDH) Department of Pharmacy offers a one-year specialty residency in oncology pharmacy practice beginning either the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule and upon licensure in California (see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

About UC San Diego Health

UC San Diego Health consists of four acute care hospitals (in Hillcrest - UC San Diego Medical Center, in La Jolla - Sulpizio Cardiovascular Center and Jacobs Medical Center, and in La Mesa – East Campus Medical Center) and associated outpatient clinics with hematology/oncology services at Moores Cancer Center & Koman Outpatient Pavilion in La Jolla, North County Cancer Services in Encinitas & Vista, Rancho Bernardo Cancer Care, and McGrath Outpatient Pavilion in Hillcrest. UC San Diego Health is also affiliated with Rady Children's Hospital-San Diego, the Veterans Affairs San Diego Healthcare System, and the Sharp Memorial Hospital Joint Blood and Marrow Transplant Program. The Health System is affiliated with the UC San Diego School of Medicine and the UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS). Nationally recognized as a National Institute of Health (NIH), National Cancer Institute (NCI) – Designated Cancer Center and a member institution of the National Comprehensive Cancer Network (NCCN), UCSDH offers innovative cancer care and research opportunities for its patients.

Purpose

PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions, and board certification in the advanced practice area, if available.

Program Description

The UC San Diego Health (UCSDH) PGY2 Oncology Pharmacy Residency is designed to train residents as advanced practitioners capable of serving as core members of interdisciplinary hematology/oncology teams. Upon completion, residents will be equipped to make complex medication-related decisions, particularly regarding oncology therapies.

Residents will participate in structured learning experiences that provide a thorough understanding of medication management in hematologic and oncologic conditions. They will be expected to demonstrate proficiency in:

- Writing and evaluating chemotherapy orders
- Overseeing the preparation, distribution, and disposal of hazardous medications
- Practicing effective leadership and management in clinical and operational settings

- Educating healthcare professionals, patients, and learners on hematology/oncology topics
- Conducting pharmacy research projects
- Precepting pharmacy students and residents
- Participating in institutional and interdisciplinary committees

This residency prepares pharmacists for clinical expertise in inpatient or outpatient oncology, which will be necessary in any future hematology/oncology career path. Graduates will be eligible to sit for the Board-Certified Oncology Pharmacist (BCOP) exam.

Training includes direct patient care, research, administration, and teaching, all within an academic medical center setting. During core rotations, residents will serve as the primary oncology pharmacist. Responsibilities may include:

- Interacting with inpatient and outpatient hematology, oncology, and blood/marrow transplant teams
- Designing and monitoring evidence-based therapeutic regimens
- Managing pharmacokinetically monitored medications
- Validating medication orders, including chemotherapy and cancer treatment
- Counseling patients regarding their cancer treatment
- Serving as secretary for the Hematology/Oncology Pharmacy & Therapeutics Subcommittee
- Supervising and mentoring PGY1 residents and pharmacy students

These responsibilities are intended to support the development of independent practice skills, clinical prioritization, and multitasking in a dynamic care environment.

Residents are required to complete a longitudinal research project. Manuscript preparation suitable for publication is expected, and submission to a peer-reviewed journal is strongly encouraged.

Education is an integral part of UCSDH's mission. Residents are expected to contribute to the educational mission of UCSDH and the Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS). Teaching activities include:

- Delivering didactic lectures and presentations
- Serving as a conference leader for the third-year therapeutics course
- Contributing to elective and core oncology coursework as needed
- Precepting students and PGY1 residents in both clinical and research settings

Residents will be assessed on their ability to supervise, mentor, and communicate effectively with learners, and are expected to function independently in these roles as they progress through the program.

Number of residency positions available: 2 residents are accepted each year

Requirements of Residents Prior to Starting the Program

(see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Application Process

Each year, the Residency Program Director (RPD) will determine if UCSDH will participate in early commitment and/or go through ASHP's nationwide resident matching program. See table below for an approximate timeline for early commitment vs ASHP Match.

In addition to the requirements above, the following are required as part of your application.

1. Letter of Intent describing your interest in oncology and why this program is a good match for you
2. Curriculum Vitae with all completed and anticipated learning experiences as well as pharmacy and non-pharmacy work experience
3. References - at least 3 individuals, 2 of which should be able to directly comment on your clinical practice skills
    a. Early Commitment (if offered): References to provide a letter of recommendation
    b. Residents going through the ASHP Match: Please have recommendation writers complete the electronic reference form within PhORCAS with detailed characteristic and narrative comments. At least one to two areas of improvement or constructive feedback that the recommender feels the candidate should continue to work on as a PGY2 resident should be identified. No separate letter of recommendation is required.

Applicants may be contacted for a preliminary phone interview. On-site or virtual interviews will be held per the table below.

Table 1: Application Requirements & Timeline

	Early Commitment	**ASHP Match**
Application	Letter of Intent CV Reference x2 - Letters	Letter of Intent CV Reference x3 – Phorcas
Application deadline	Around October	January 2
Preliminary phone interview	October/November	January
On-site or Virtual Interviews	October/November	January - March

Resident Pay and Benefits

Refer to UC San Diego Health Pharmacy Residency website for details on salary and benefits.
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/

Program Structure

This PGY2 Oncology Program will focus on both inpatient and outpatient hematology/oncology experiences.
See below our structure schedule information presented in multiple formats: chart, written, and visual image. The allocation below is our usual schedule; however, changes may be needed based on resident or program needs.

Table 2: PGY2 Onc Program Structure

Learning Experience	Duration (weeks)	Type
Orientation (some topics may be scheduled throughout the first month)	1	Required
Outpatient (Outpt) – 22 weeks total		
-Outpt Staffing Orientation	4	Required
-Outpt Clinics (#1-4) • Clinic 1 – Solid Tumors (Assigned by preceptor) • Clinic 2 – Solid Tumors (Assigned by preceptor) • Clinic 3 – Malignant Hematology/BMT • Clinic 4 – Benign Hematology/Pain & Palliative Care	14 (4) (4) (3) (3)	Required
-Outpt Oncology Advanced & STAAR	4	Required
Inpatient (Inpt) – 20 weeks total		
-Inpt Staffing Orientation	4	Required
-Inpt Blood & Marrow Transplant (BMT)	8	Required
-Inpt Hem/Onc (Block 1 and Block 2)	8	Required
Other – 9 weeks total		
Elective • (Options include: Cancer Center Administration, Cancer Center Retail Pharmacy, Infectious Diseases, Informatics, Investigational Drug Service)	4	Elective
Research/Project Time	~3	Elective
Investigational Drug Service	2	Required
Longitudinal		
Therapeutics Conference	12	Required
Hem/Onc Pharmacy &Therapeutics Subcommittee	52	Required
Presentations - Grand Rounds/ In-services/Lectures	52	Required
Research Project/Publication	52	Required
Outpt Staffing	26	Required
Inpt Staffing	26	Required

Written Yearlong Schedule

Resident 1

- Week 1 Orientation
- Weeks 2-5 – Inpatient Staffing Orientation
- Weeks 6-8 – Outpatient Clinic 3 (Malignant Hematology/Blood & Marrow Transplant (BMT)
- Weeks 9-12 – Inpatient BMT
- Week 13 – Project
- Weeks 14-17 – Inpatient BMT
- Weeks 18-21 – Outpatient Staffing Orientation
- Week 22 – December Holiday with 1-3 Project Days
- Weeks 23-26 – Outpatient Clinic 1 (Solid Tumors)
- Week 27 – Project
- Weeks 28-31 – Inpatient Hem/Onc (1st Block – Mentoring/Coaching)
- Weeks 32-35 – Outpatient Clinic 2 (Solid Tumors)
- Week 36 – Project/Conference
- Weeks 37-38 – Investigational Drug Service (IDS)
- Weeks 39-42 – Inpatient Hem/Onc (2nd Block – Coaching/Facilitating)
- Weeks 43-45 – Outpatient Clinic 4 (Benign Hematology/Pain & Palliative Care)
- Weeks 46-49 – Outpatient Oncology Advanced & Specialty Telehealth Adherence & Adverse Reaction (STAAR) Program
- Weeks 50-52 – Elective

Resident 2

- Week 1 – Orientation
- Weeks 2-5 – Outpatient Staffing Orientation
- Weeks 6-9 – Outpatient Clinic 1 (Solid Tumors)
- Weeks10-13 – Inpatient Staffing Orientation
- Week 14 – Project
- Weeks 15-17 – Outpatient Clinic 3 (Malignant Hematology/Blood & Marrow Transplant (BMT)
- Weeks 18-21 – Inpatient BMT
- Week 22 – December Holiday with 1-3 Project Days
- Weeks 23-26 – Inpatient BMT
- Week 27 – Project
- Weeks 28-31 – Outpatient Clinic 2 (Solid Tumor)
- Weeks 32-33 – IDS
- Weeks 34-35 – Inpatient Hem/Onc (1st Block – Mentoring/Coaching)
- Week 36 – Project/Conference
- Weeks 37-38 – Inpatient Hem/Onc (2nd Block – Coaching/Facilitating)
- Weeks 39-41 – Outpatient Clinic 4 (Benign Hematology/Pain & Palliative Care)
- Weeks 42-45 – Elective
- Weeks 46-49 – Inpatient Hem/Onc (2nd Block – Coaching/Facilitating)
- Weeks 50-52 – Outpatient Oncology Advanced & STAAR Program

Image 1: Example of Yearlong PGY2 Onc Schedule

Blue cells = Outpatient experiences
Yellow cells = Inpatient experiences
Green cells = Other experiences
Longitudinal experiences are not shown

	Resident 1		Resident 2	
Date	Rotation	Staff	Rotation	Staff
27-Jul	Orientation	IP Staffing	Orientation	OP Staffing
3-Aug	T - LJ ONC IP		T-ONC INF	
10-Aug	T - LJ ONC IP		T-ONC INF	
17-Aug	T - LJ ONC IP		T-ONC INF	
24-Aug	T - LJ ONC IP		T-ONC INF	
31-Aug	BMT Clin3		ONC Clin1	
7-Sep	BMT Clin3		ONC Clin1	
14-Sep	BMT Clin3		ONC Clin1	
21-Sep	BMT IP		ONC Clin1	
28-Sep	BMT IP		T - LJ ONC IP	
5-Oct	BMT IP		T - LJ ONC IP	
12-Oct	BMT IP		T - LJ ONC IP	
19-Oct	Project		T - LJ ONC IP	
26-Oct	BMT IP		Project	
2-Nov	BMT IP		BMT Clin3	
9-Nov	BMT IP		BMT Clin3	
16-Nov	BMT IP		BMT Clin3	
23-Nov	T-ONC INF		BMT IP	
30-Nov	T-ONC INF		BMT IP	
7-Dec	T-ONC INF		BMT IP	
14-Dec	T-ONC INF		BMT IP	
21-Dec	1 project d?		1 project d?	
28-Dec	ONC Clin1		BMT IP	
4-Jan	ONC Clin1		BMT IP	
11-Jan	ONC Clin1		BMT IP	
18-Jan	ONC Clin1		BMT IP	
25-Jan	Project		Project	

	Resident 1		Resident 2	
Date	Rotation	Staff	Rotation	Staff
1-Feb	ONC IP1	OP Staffing	Clin2 ONC	IP Staffing
8-Feb	ONC IP1		Clin2 ONC	
15-Feb	ONC IP1		Clin2 ONC	
22-Feb	ONC IP1		Clin2 ONC	
1-Mar	Clin2 ONC		IDS	
8-Mar	Clin2 ONC		IDS	
15-Mar	Clin2 ONC		ONC IP1	
22-Mar	Clin2 ONC		ONC IP1	
29-Mar	HOPA/Project		HOPA/Project	
5-Apr	IDS		ONC IP1	
12-Apr	IDS		ONC IP1	
19-Apr	ONC IP2		Clin4 HEM	
26-Apr	ONC IP2		Clin4 HEM	
3-May	ONC IP2		Clin4 HEM	
10-May	ONC IP2		Elective	
17-May	Clin4 HEM		Elective	
24-May	Clin4 HEM		Elective	
31-May	Clin4 HEM		Elective	
7-Jun	ONC ECC		ONC IP2	
14-Jun	ONC ECC		ONC IP2	
21-Jun	ONC ECC		ONC IP2	
28-Jun	ONC ECC		ONC IP2	
5-Jul	Elective		ONC ECC	
12-Jul	Elective		ONC ECC	
19-Jul	Elective		ONC ECC	
26-Jul	Elective		ONC ECC	

Staffing

The PGY2 resident will be required to staff 16 weekends at UCSD (which includes 1 minor holiday weekend and 1 major holiday (Thanksgiving, Christmas, or New Year's)). Although subject to change, this will be set up as inpatient staffing x6 months and outpatient staffing x6 months. Most months the resident will staff once, although some months will have two weekends scheduled due to training, major/minor holiday, or resident schedule. There will be 1-2 weekends that may be exchanged for weekday staffing. Weekday staffing would be inpatient or outpatient staffing after rotation, one day per week, to allow the resident to gain more experience with chemotherapy order evaluation and to experience the differences between weekday and weekend staffing.

To help provide more formative feedback, residents are expected to seek feedback from at least one staff member each weekend that they staff. The feedback will be solicited via an online survey.

Projects

Research Project

The resident will be involved in 2 research projects throughout the academic year. To facilitate approval from our Investigational Review Board (IRB) the primary project will be started for the incoming resident by the outgoing resident (i.e., IRB submission completed) then the resident will complete data collection, analysis, and presentation of results. The secondary project will be chosen toward the end of the year by the newly matched resident, then the current resident will complete the IRB submission. This process allows the resident to see all aspects of the research experience while minimizing delays during the IRB approval process – giving the resident more time for data collection/analysis. The primary project will be presented at a national oncology organization meeting (e.g., Hematology/Oncology Pharmacist Association - HOPA) or an equivalent conference, presented at a local or state-wide meeting, and written in manuscript form. A list of project ideas will be generated from the preceptors, and the resident must select a project before starting the program.

Medication Utilization Evaluation

The Medication Utilization Evaluation (MUE) will be a smaller scale project compared to the main research project. It can be completed at any time during the residency year, and results will be presented at the Hematology/Oncology P&T Committee Meeting.

Other Projects

The resident will be asked to complete multiple projects throughout the PGY2 year. Some will focus on formulary management and quality improvement; others may initiate new protocols or guidelines. These projects will be formulated through their involvement in the Hematology/Oncology Subcommittee of the Pharmacy & Therapeutics Committee or during their learning experiences.

Publication

Scientific writing is strongly emphasized, and the preparation of a manuscript suitable for publication will be expected, and submission to a journal is strongly encouraged. The purpose of this requirement is to develop scientific writing and communication skills. The types of publishable literature can include any of the following types of manuscripts:

- Case reports with a review of the literature
- Primary research/original research
- Medication Use Evaluation (MUE)
- Meta-analysis of a disease state or therapy
- Review article

Presentations and Teaching

The residents will be required to give many educational lectures to their colleagues throughout their residency year. Some of these events are listed below.

Grand Rounds

The resident will be delivering a 1-hour CE lecture to the pharmacy staff regarding a new drug, new guidelines, controversial topic in hematology/oncology or another topic approved by PGY2 Onc RPD.

If there are 2 hematology/oncology PGY2 resident(s), they can present individual topics at separate times of the year, **or** they could present a controversial topic together (taking opposing stances). The idea behind a joint presentation is not to antagonize each other but to deliver an unbiased complete presentation of the controversial topic diving into the pertinent literature that supports their viewpoint and counters their opponents. The residents will have rehearsed their presentation together ahead of time to provide a seamless educational lecture.

Drug/Disease Review

Throughout the year, residents will go through various classes of anti-neoplastic agents and disease states. This will be an informal presentation to the inpatient/outpatient preceptor(s). The drug topic discussions will take place in the beginning of the year and focus on mechanism of action, pharmacokinetics, adverse effects, drug interactions, counseling pearls, etc. Disease topic discussions will take place throughout the year and focus on risk factors, treatment algorithms (first line treatment in each stage; other common agents they should know and when you would use them), long term follow-up. Preceptors will give the residents landmark trials to review prior to the discussion.

Monthly Didactic Forums – BCOP Lecture Series

In addition to the grand rounds, the resident(s) will be required to research and deliver 1-2 lectures pertaining to oncology topics throughout the year. These topics will assist the resident as a study guide for the BCOP exam and will be relevant to the patient population they are currently involved with from a learning experience perspective when possible. All parties are welcome to attend, but the core hematology/oncology staff are strongly recommended. This lecture series is held in conjunction with PGY2 Oncology residents from the San Diego area, along with the UCSD SSPPS/Industry fellows, which gives the residents/fellows the opportunity to network with other oncology pharmacists in the area.

Journal Club

Residents will prepare a hematology/oncology journal club where the resident(s) will be required to present 2 articles by the end of the year as a requirement for graduation.

1. Article #1: Presented as part of the California Hematology/Oncology Pharmacists Network (CHOPN) Journal Club/Case Presentation Series. This group consists of PGY2 Oncology residents at other institutions in California (UCSF, UC Davis, Stanford, UCSD, etc.). This CHOPN journal club will be approved for ACPE CE, and the resident can choose to present a case presentation or traditional journal club presentation which will be approved by their RPD and preceptor.
2. Article #2: Presented as part of the Blood & Marrow Transplant Journal Club. This group meets monthly and consists of advanced practice providers working with the blood & marrow transplant team. The resident will choose an article which will be approved by their RPD/preceptor.

Note: A learning experience preceptor may require journal club presentation(s) as part of the learning experience, which will not count toward the journal club graduation requirement.

Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS)

The resident's involvement with UCSD's SSPPS will vary depending on requests from SSPPS, but possible activities include writing up hematology/oncology cases for student case conference, co-leading a case conference section with another PGY1 or PGY2 resident, preparing exam questions based on the

hematology/oncology lectures presented, and/or presenting formal lectures on hematology/oncology topics. Involvement beyond this would be related to precepting a student if they are on a learning experience with the resident.

Clinical Forum

A 20–30-minute clinical forum is required during the residency year. The clinical forum topic is usually clinical pearls from the HOPA annual meeting.

In-service

An in-service on a hematology/oncology topic is required during the residency year.

Meetings

Professional Meetings

The residents will attend a hematology/oncology professional meeting during their PGY2 year and present their research via a poster or platform presentation. Usually the residents attend the HOPA annual meeting in March/April, but other oncology meetings may be acceptable with RPD approval (some examples: ASCO, ASH, NCCN, etc). Residents are not required but may choose to attend California Society of Health System's Pharmacist (CSHP), American Society of Health Systems Pharmacists (ASHP) midyear meeting or other local conferences (i.e., UC Collaborative). A resident may, upon request, be granted the opportunity to attend more than 1 of the meetings above or other professional events, but reimbursement for all professional events has been added to the resident's salary so please plan accordingly. Consider setting aside ~$1500-$2000 to be used for professional meeting attendance for the year. All meeting attendance must be approved by the RPD.

Hematology/Oncology Subcommittee of Pharmacy & Therapeutics Committee

The resident will attend, take minutes, and complete projects as needed for the monthly Hem/Onc P&T Subcommittee, which meets on the first Friday of every month from 7-8am. This meeting will introduce the resident to healthcare professionals within UCSDH, allow the resident to see policy making from infancy to the final product, and generate projects for the resident to become involved in. Drug monographs will be presented to this committee.

Bi-Weekly Residency Program Director (RPD) Meetings

The resident will meet every 2 weeks with the RPD to review progress on learning experiences, projects, and upcoming commitments.

Research Meetings

It is strongly encouraged for the residents to meet with their research preceptor weekly, especially as the project is starting. Meeting frequency may be extended to every 2-3 weeks as needed.

Assessment Strategy – PharmAcademic

The PGY2 Oncology Specialty Residency Program uses the ASHP online evaluation tool called PharmAcademic, which is available for all ASHP-accredited pharmacy residency programs.

Residents who are matched with this PGY2 specialty program are entered into PharmAcademic prior to their arrival in August.

Residents' schedules and assigned RLS Goals are entered into PharmAcademic. We have chosen to use the PharmAcademic evaluation tools for our Learning Experiences. For each Learning Experience, the following Assessments are completed:

- Preceptor Assessment of Resident: Summative (for each Learning experience)
- Resident Assessment of the Learning Experience
- Resident Assessment of Preceptor

Preceptors and residents are encouraged to exchange on-going, daily verbal feedback throughout each rotation experience. The residents and preceptors are trained and reminded throughout the year to complete evaluations in a thorough (quantitative and qualitative) and timely manner. ***Evaluations should be completed within 7 days after completion of the learning experience.*** To this end, evaluations may be used, not only as assessment tools, but also as tools that preceptors may turn to for help in guiding residents to improve, grow and achieve the residency programs and the residents' goals and objectives for the residency year. The RPD reviews all evaluations and solicits verbal feedback from preceptors and residents to provide guidance to help the resident maximize the residency experience.

The residents discuss their program goals and interests at baseline then quarterly (Development Plans) with the RPD to evaluate where they are in meeting the residency goals and to set or modify goals for the remaining months of the residency program. Residents may meet more often if their interests change throughout the year. The resident may request schedule changes throughout the residency year, and the RPD will make all efforts to accommodate them. Assessment tools will be adjusted as changes are made.

The resident completes the ASHP PharmAcademic exit evaluation. Residents also are requested to complete a yearlong evaluation of the Residency Program by indicating pros/cons of each rotation. This document is to be updated at the end of each learning experience rather than at the end of the year.

The results of these year-end program evaluations are reviewed by the RPD for potential merit, and potential action plans are developed to achieve continuous quality improvement with the RPD and Residency Advisory Committee.

PGY2 Oncology Competency Areas, Goals and Objectives

- Competency Areas:
  - Required-
    - Competency Area R1: Patient Care
    - Competency Area R2: Advancing Practice and Improving Patient Care
    - Competency Area R3: Leadership and Management
    - Competency Area R4: Teaching, Education, and Dissemination of Knowledge
    - Competency Area R5: Oncology Investigational Drugs
  - Elective- (optional competency areas)
    - Competency Area E1: Teaching and Learning
    - Competency Area E2: Initiating an Oncology Pharmacy-Related Service
    - Competency Area E3: Oncology Credentialing
    - Competency Area E4: Publishing
    - Competency Area E5: Management of Oncology Medical Emergencies
    - Competency Area E6: Specialty Pharmacy
- The resident is encouraged to read detailed information about each goal at the ASHP website (click here or use this link: https://www.ashp.org/-/media/assets/professional-development/residencies/docs/pgy2-newly-approved-oncology-pharmacy-2016.ashx?la=en&hash=0897D1F3D3A0F3F2E9009DB480812AE9A618C594
- For information about Goals and Objectives Taught/Taught and Evaluated in Learning Experiences, please visit PharmAcademic, go to the 'Reports' tab, and click on 'TE Assignment Report'.

PGY2 Oncology Residency Requirements for Completion/Graduation

- Learning Experiences/Staffing Requirements
    - Complete all evaluations in PharmAcademic
    - Successful completion of all learning experiences and a minimum of 90% of residency required objectives marked as Achieved for Residency (ACHR) with 100% marked as ACHR in Competency Area R1
    - Disease state appendix
    - Staffing (16 weekends /year)
- Residency Project
    - Research Primer Course
    - Project Plan
    - Abstract at Hem/Onc national meeting (example: HOPA)
    - Poster at Hem/Onc national meeting (example: HOPA)
    - Final Manuscript
- Leadership and Practice Management
    - MUE (qty: 1)
    - Monograph/Drug Class Review (qty: 2)
    - Committee(s) participation (Hem/Onc P&T subcommittee)
    - Update Oral Cancer Treatment Chart
    - Research Submission
- Teaching Certificate/Educational Requirements
    - Small Group Teaching (example: Therapeutics Course – Case Conference Leader)
    - Didactic Lecture (Principles of Cancer & Chemotherapy and Onc Elective when offered)
    - SSPPS OSCE (qty: 1 if Onc specific OSCE offered)
    - Grand Rounds
    - Clinical Forum (qty: 1)
    - Journal Club (qty: 2)
    - In-service to audience (qty: 1)
    - BCOP Lecture Series (1 lecture)
    - Gyn Onc Fellows Lecture
    - Drug Topic Discussions
    - Disease Topic Discussions

Appendix I: Pharmacy Informatics

PGY2 Pharmacy Informatics Residency Program Overview
National Match Service: **632774**
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/programs/informatics/

The UC San Diego Health (UCSDH) Department of Pharmacy offers a one-year specialty residency in pharmacy informatics beginning either the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule and upon licensure in California (see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Scope:
The UC San Diego Health (UCSDH) Information Services department supports all UCSDH hospitals, clinics, and affiliated sites across the San Diego region.

Within this structure, the **Medication Processes team** collaborates closely with Pharmacy, Nursing, and medical staff to maintain and optimize the electronic health record (EHR) system. The team focuses on promoting safe, efficient medication-use processes across the continuum of care, including:

- Medication ordering, dispensing, administration, and monitoring
- Inpatient and outpatient operations
- Perioperative and procedural workflows
- Pharmacy automation systems
- Medication-related revenue cycle processes

Purpose:
PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions, and board certification in the advanced practice area, if available.

Program Description:
The UC San Diego Health PGY2 Pharmacy Informatics Residency prepares pharmacists to become leaders in health information technology. The program provides immersive, hands-on experience in optimizing the electronic health record (EHR) to improve medication safety, streamline workflows, and support clinical decision-making.

Residents serve as integral members of the Medication Processes team within the Information Services department, gaining experience across the full EHR lifecycle—from design and build to implementation, monitoring, and optimization. Through integrated informatics, clinical, and operational training, residents develop the skills to assess healthcare needs, implement technology-driven solutions, and evaluate outcomes.

Epic Training
Residents enroll in the earliest available **Epic Willow Inpatient** training course (virtual or in-person) at the start of the residency. Successful completion of the course project and exam results in Epic Willow accreditation or certification.

Residents are expected to pass the course project within 5 business days after the last class, and pass the Epic Willow Inpatient exam within 7 business days after the last class. A resident who does not pass the project AND exam within 3 attempts AND within 28 calendar days after the last Epic class date, will be dismissed from the residency.

Resident Responsibilities
As full-time team members, residents will:

- Design and implement solutions for user-reported issues and system enhancements
- Support the full medication-use process (ordering, verification, dispensing, documentation, and billing)
- Contribute to clinical decision support (CDS), e-prescribing, reporting, interfaces, and retail pharmacy systems

- Develop CDS tools and perform data analysis and reporting
- Participate in system integration and optimization initiatives
- Engage in interdisciplinary committees (e.g., CDS Oversight, Medication Alerts)
- Provide user education, precept learners, participate in on-call responsibilities, and complete a major research project suitable for presentation

Additional experiences include staffing to maintain clinical and operational proficiency, serving as a liaison to pharmacy staff, and gaining exposure to non-EHR technologies such as infusion pumps and automated dispensing cabinets. Residents also build skills in project management, prioritization, and stakeholder collaboration.

Program Outcomes
Graduates are prepared for informatics pharmacist roles and are equipped to optimize medication-use systems within complex healthcare environments. They serve as key resources in pharmacy informatics and lead initiatives that leverage technology to improve patient care.

Unique Strengths:
- Large integrated health system
- Exposure to both inpatient and ambulatory EHR
- Formal Epic accreditation
- Strong collaboration with both IS and clinical teams

Number of residency positions available: 1

Resident Pay and Benefits: Refer to UC San Diego Health Pharmacy Residency website (https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/) for details on salary and benefits

Requirements of Residents Prior to Starting the Program:
(see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Application:
Each year, the RPD will determine if UCSDH will participate in early commitment and/or go through the nationwide resident matching program. If RPD selects to early commit, UC SWEC PGY2 Residency Program Policy and Procedures will be followed (see Appendix P).

Applications for ASHP Match should include the following:
All applicants must be enrolled in the Resident Matching Program. To facilitate this enrollment process and for further information, please visit the following website: www.natmatch.com/ashprmp**.** Applications will be accepted when PhORCAS opens and due by January 2nd. Applications should be submitted through PhORCAS and include the following:

1. Letter of intent.
2. Current *Curriculum Vitae* with all experiential completed and anticipated learning experiences as well as pharmacy and non-pharmacy work experience.
3. Three electronic references are required. At least **two** of the references should be from preceptors or supervisors who can directly comment on your clinical practice skills.
    a. **Note**: Please have recommendation writers complete the electronic reference form within PhORCAS with detailed characteristic and narrative comments. One to two areas of improvement or constructive feedback that the recommender feels the candidate should continue to work on as a PGY2 resident should be identified. No separate letter of recommendation is required.

Interviews will be held late January through February.

Program Structure Academic Year:
Descriptions of each learning experience can be found in PharmAcademic

- Scheduled (block) learning experiences
    - Orientation and Training - 9 weeks. Concurrent staffing training and Epic Willow Inpatient training

    - EHR Core I - 10 weeks
    - EHR Core II - 10 weeks
    - EHR with CDS Focus - 9 weeks
    - EHR with Amb Care Focus - 10 weeks
- Longitudinal learning experiences
    - Leadership - 10 months (Average 2 hours per week)
    - Medication Safety - 10 months (Average 2 hours per week)
    - Pharmacy Automation - 2-week block (Full-Time) plus 7 months longitudinal (Average 1 hour per week)
    - Research and Analytics - 12 months (Average 2 hours per week)
    - Staffing, On-Call, and Duty Hours - 12 months
- Elective learning experiences
    - Oncology (Beacon) - 1-week block (Full-Time) plus 6 months longitudinal (Average 2 hours per week)

Staffing:
The PGY2 resident is required to work 16 weekends per year. This includes:

- 10 staffing weekends
- 6 weekends of on-call coverage, which occur during assigned on-call weeks for the Medication Processes team

This requirement also includes coverage of one minor holiday and one major holiday (Thanksgiving, Christmas, or New Year's).

To promote formative development, residents are expected to proactively seek feedback from at least one staff member during each staffing weekend. The Residency Program Director (RPD) will also solicit additional feedback via email.

On-Call Responsibilities
The resident will provide on-call coverage for the Medication Processes team during six one-week periods throughout the academic year. Responsibilities include triaging and responding to incidents assigned to the team during the designated on-call week. Weekend on-call responsibilities are fulfilled as part of these assigned on-call weeks and are included in the total weekend commitment described above.

Major Project and Professional Meetings
The resident is required to complete a research project and present the results at a professional conference (e.g., Epic Expert User Group [XGM], UC Collaborative Annual Pharmacy Leadership Conference).

Residents who have not previously completed the UC San Diego Health Resident Research Primer Course are required to do so. This course provides structured guidance on the research process, including study design, data analysis, and dissemination. Protected project time is incorporated into the residency schedule to support timely completion of major milestones.

The resident is also required to attend one professional meeting. All registration fees and travel expenses are the responsibility of the resident.

Committees and Meetings:
As required by various learning experiences, the resident should participate in committees throughout the year including Medication Alerts, Safe Medication Practices, Transitions of Care, Pain Management, Order Sets, and Clinical Decision Support Oversight.

Vacation:
All vacation requests should be documented with a leave adjustment form, emailed to the RPD or coordinator (https://ishare.ucsd.edu/sites/RX/HR%20documents/Leave_Adjustment_Form.pdf) **before** the time is taken.

Teaching:
Effective education opportunities which will be evaluated and will include grand rounds, journal clubs (1 required during residency), in-services (as possible or as designated in the learning experience description), and teaching opportunities.

School of Pharmacy course lecture: Residents will prepare and give a lecture on Pharmacy Informatics, or provide other instruction for students in Therapeutics, Informatics, or other courses.

Grand Rounds: The resident will deliver a 1-hour CE lecture to the pharmacy staff regarding a topic in informatics. Grand Rounds presentations need to be presented to the project preceptor at least two weeks in advance for feedback and comments. Failure to do so will result in delay of the presentation. A full 'run-through' presentation must be schedule at least one week in advance of the planned presentation in order to provide a seamless educational lecture. Please refer to Appendix L in the Residency Manual for more information and evaluation strategies. An on-demand PharmAcademic evaluation will be used to track Grand Rounds completion.

Informatics Journal Clubs: Residents are required to present one journal club presentation during the year. Journal Club presentations need to be presented to the project preceptor at least one week in advance for feedback and comments. An on-demand PharmAcademic evaluation will be used to track journal clubs.

In-services: When needed, residents will provide in-services to pharmacy and other staff, related to new system functionality.

Assessment Strategy:
The PGY2 Pharmacy Informatics Residency Program utilizes PharmAcademic to administer and record assessments.

Initial Assessment & Training Plan
Residents are entered into PharmAcademic prior to the start of the residency and complete two pre-residency assessments:

- ASHP Entering Interests Form
- Entering Objective-Based Self-Evaluation

These assessments are used by the Residency Program Director (RPD) to develop a **customized training plan** tailored to the resident's goals and interests.

The training plan and Residency Requirement Checklist are reviewed collaboratively with the resident and may be adjusted throughout the year. Schedule modifications may be requested, and assessment tools are updated accordingly. PharmAcademic will be updated to reflect all changes.

Ongoing Evaluation
Residents' schedules and evaluations are maintained in PharmAcademic. The following assessments are completed for each learning experience:

- Preceptor Assessment of Resident (summative)
- Resident Self-Assessment (summative; required for block rotations)
- Resident Assessment of Learning Experience
- Resident Assessment of Preceptor(s)

Feedback & Evaluation Expectations

- Residents and preceptors are expected to provide **ongoing verbal feedback** throughout each learning experience
- All formal evaluations must be completed **within 7 days** of the learning experience
- Residents are expected to provide **constructive feedback** to preceptors

Evaluation data are used to guide resident development and goal achievement, and support preceptor development and program improvement. The RPD reviews all evaluations and incorporates both written and verbal feedback to optimize the residency experience.

Program Evaluation

- Residents complete a **program evaluation during the third quarter**, which is reviewed at the Residency Advisory Committee (RAC) meeting
- Agreed-upon changes are implemented in the following academic year
- Residents also complete an **exit Objective-Based Self-Evaluation** at the end of the program

PGY2 Competency Areas, Goals and Objectives (2017 Standard):

- Competency Areas: broad categories of the residency graduates' capabilities.
  - R1: Informatics Fundamentals: Standards and Best Practices
  - R2: Information Technology and Automation
  - R3: Clinical Decision Support
  - R4: Data Analytics
  - R5: Project Management
  - R6: Teaching, Education, Dissemination of Knowledge, and Evaluation of Learning Activities
  - R7: Leadership and Management
- Educational Goals: Goals listed under each outcome are broad sweeping statements of abilities.
- Educational Objectives: Resident achievement of educational goals is determined by assessment of the resident's ability to perform the associated educational objective below each educational goal.
- The resident is encouraged to read detailed information about each goal at the ASHP website (click on Informatics – Effective 2017) https://www.ashp.org/Professional-Development/Residency-Information/Residency-Program-Directors/Residency-Accreditation/PGY2-Competency-Areas
- For current residents, information about Goals and Objectives Taught/Taught and Evaluated in Learning Experiences are found at PharmAcademic, go the 'Reports' tab, and click on 'Goals and Objectives Taught/Taught and Evaluated in Learning Experiences'.

PGY2 Pharmacy Informatics Residency Requirements for Completion/Graduation:

Completion Requirements – Please check all that apply to the resident
Learning Experiences/Staffing Requirements
☒ Complete all evaluations in PharmAcademic
☒ Successful completion of all learning experiences*
☒ Minimum of 90% of residency required objectives marked as Achieved for Residency (ACHR) with 100% marked as ACHR in Competency Area R1*
☒ Staffing 10 weekends/year
☒ On-call 6 weekends/year
Residency Project
☒ Abstract
☒ Platform Presentation at Epic XGM, UC Collab, or similar
☒ Manuscript suitable for publication - does not have to be submitted or accepted.
☒ Research Primer Course
Leadership and Practice Management
☒ Committee Participation: Med Alerts, CDSO, MERP
☒ Epic Willow Proficiency, Accreditation, or Certification
Teaching Certificate/Educational Requirements
☒ Didactic Lecture: Intro to Pharmacy Informatics or similar
☒ Grand Rounds
☒ Journal Club - qty: 1

*Successful completion is defined as all learning experience objectives marked satisfactory progress (SP), achieved (ACH) or achieved for residency (ACHR) by the final evaluation of the learning experience.

Appendix J: Psychiatry

PGY2 Psychiatric Pharmacy Residency Program Overview
National Matching Service Code: **669066**
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/programs/psychiatry/

The UC San Diego Health Department of Pharmacy offers a one-year specialty residency in psychiatric pharmacy practice beginning either the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule and upon licensure in California (see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Scope:
UC San Diego Health consists of three acute care hospitals (UC San Diego Medical Center in Hillcrest, Sulpizio Cardiovascular Center, Jacobs Medical Center which includes former Thornton Hospital and East Campus) and associated outpatient clinics. UC San Diego Health is also affiliated with Rady Children's Hospital-San Diego, the Veterans Affairs San Diego Healthcare System, and the Sharp Memorial Hospital Joint Blood and Marrow Transplant Program. The Health System is affiliated with the UC San Diego School of Medicine and the UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences. The Department of Pharmacy provides clinical services at all four hospitals and all associate clinics, infusion centers and physician practices.

Purpose:
PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions, and board certification in the advanced practice area, if available.

Program Description:
Pharmacy residents completing the UC San Diego PGY2 Psychiatric Pharmacy Practice Residency will be described as advanced practitioners who can serve as an authoritative resource on the optimal use of medications used to treat individuals with mental health disorders. The resident will be competent in the management of patients with a wide range of acuity, including medication therapy management for various mental health disorders in a variety of acute care and ambulatory health settings and health systems. They will have been responsible for achieving optimal drug therapy outcomes as part of an interdisciplinary health care team. The resident will have demonstrated proficiency in oral and written communication skills and in educating other health care professionals, patients, students and the community on mental health conditions and drug-related topics. The resident will have opportunities to precept students on rotation from the UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences. Residents will have demonstrated professional maturity by evaluating and monitoring their own performance, as well as the performance of their preceptors. The resident will have been trained in research methodologies and leadership skills, developed organizational and time management skills, and become proficient in the use of technology to support evidence-based medicine and patient-centered care. The resident will also have the opportunity to strengthen their teaching skills by providing didactic lectures and serving as conference facilitator. Graduates of this PGY2 residency will possess knowledge and skills that should prepare them for career opportunities in any behavioral health unit for any health care organization. Graduates of this program will also be eligible for the board certification examination in psychiatric pharmacy.

Number of residency positions available: 1

Resident Pay and Benefits: Refer to UC San Diego Health Pharmacy Residency website (https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/) for details on salary and benefits

Requirements of Residents Prior to Starting the Program:
(see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Application:
All applicants must be enrolled in the Resident Matching Program. To facilitate this enrollment process and for further information, please visit the following website: www.natmatch.com/ashprmp**.** Applications will be accepted when PhORCAS opens and due by January 2.

Applications should include the following:

1. Letter of intent. Please address the following items in your letter of intent. Your letter of intent should be no more than two pages long.
    a. Our program seeks to train clinical pharmacists who strive to promote cultural competency in their practice by connecting with diverse patient populations, with whom they may not share a similar background. Please discuss a life experience in which you believe you demonstrated cultural competence and what you learned from the experience.
    b. Please describe what non-clinical skills you hope to gain from the PGY2 residency in psychiatric pharmacy at UC San Diego Health.
2. A current *Curriculum Vitae* with all completed and anticipated experiential learning experiences, pharmacy work experience and research experience.
3. Three electronic references are required. At least 1 of the references should be from preceptors or supervisors who can directly comment on your clinical and practice skills.
   Note: Please have recommendation writers complete the electronic reference form within PhORCAS with detailed characteristic and narrative comments. One to two areas of improvement or constructive feedback that the recommender feels the candidate should continue to work on as a PGY2 resident should be identified. No separate letter of recommendation is required.

On-site/virtual interviews will be held during late January/February and are required for all candidates who are considered for the Match (if no candidates have been selected during the early commitment process). Early commitment candidates will be interviewed on-site in November.

Program Structure:
The PGY2 resident will gain the skills to function as a psychiatric pharmacist during the required and elective rotations. Primary service responsibilities include rounding with the interdisciplinary team (inpatient experiences) to design, recommend, monitor, and evaluate patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine. The resident will also learn skills needed to function within a multidisciplinary mental health treatment team. Daily activities will include: participating in treatment rounds, reviewing each patient's profile for appropriateness of drug therapy, providing provider, nursing and patient education, validating pharmacy orders on patients, and overseeing and directing PGY1 resident and pharmacy student activities. This integration of staffing and clinical services prepares the resident for any type of practice environment they may encounter in their future jobs by emphasizing the development of essential skills required for an advanced pharmacy practitioner: independent practice skills, multi-tasking and prioritization. During ambulatory care experiences, the resident will learn to integrate psychopharmacology knowledge in the care of specialty clinic patient populations.

Descriptions of each learning experience can be found in PharmAcademic

Orientation & Staffing Training	2-4 weeks (depending on resident's previous experience)
Required Block Experiences (3-5 weeks)	Adult Psychiatry I, Adult Psychiatry II, Geriatric Psychiatry, Child and Adolescent Psychiatry, Consult Liaison Psychiatry, Community Mental Health, Neurology Clinic, Substance Use Disorder
Required Longitudinal Experiences	General Psychiatry Clinic (3 months), Teaching, Project and Continuous Professional Development (12 months, see below for additional information), Operations (12 months, 16 weekends, 1 major and 1 minor holiday)
Electives (3-5 weeks)	HIV/Owen Clinic, Academia, Emergency Medicine, Informatics, Neurocritical Care, Family Medicine Clinic, Palliative Psychiatry Other electives may be available based on resident interest.
Teaching, Project and Continuous Professional Development (Longitudinal)	Concentrated times for teaching, projects and other continuous professional development efforts • Resident project/research (longitudinal, 12 months) • Medication Use Evaluation project (longitudinal) • 2-3 weeks dedicated time during year (as allowed per schedule) • Weekly conference facilitation for Therapeutics Course at SSPPS (10 weeks) • Minimum of 1 didactic lecture in Therapeutics 212C course (1-2 hours)

	• Psychiatry Core Discussions: 5:00-6:00 every 4 weeks; schedule will be distributed separately. Attendance mandatory, minimum 2 presentations. • Clinical Forums/M&M Rounds: 4 sessions during year; may be combined with Psychiatry Core Discussions • Journal club presentations, minimum 2 presentations • RN In-service presentations, minimum 2 presentations • Psychiatry CQI/MERP Meeting: Virtual, see Dr Tiefenthaler for schedule • OUD Task Force: Virtual, First Wednesday of the month, 12:00-1:00 pm • Pharmacy Grand Rounds: 1 session per year (UC San Diego Medical Center, Hillcrest Auditorium)
Leadership Development	SDPRL seminars: optional depending on topic (complete schedule provided separately) Attendance at other Grand Rounds (when on-site): • UCSD Department of Psychiatry: Second Tuesdays, 12:00-1:00 pm (Virtual) • Rady Children's Hospital: Tuesdays 1:00-2:00 pm (mandatory during Child & Adolescent Psychiatry rotation; Rady Children's Hospital-San Diego, Dining Room Conference Rooms (Hahn Family Pavilion, 3020 Children's Way, San Diego, CA 92123) • Geriatrics, Gerontology and Palliative Care: Tuesdays, 12:00-1:00 pm (Zoom) Professional Meetings: • AAPP Annual Meeting (must submit abstract for presentation)

Operations:
Staffing will be incorporated into the residency experience with weekend shifts that provide the opportunity for PGY2 residents to independently cover admitted patients. PGY2 psychiatry residents are required to staff 16 weekends (which includes 1 minor holiday weekend PLUS 1 major holiday (Thanksgiving, Christmas, or New Year's). To help provide more formative feedback, residents are expected to seek feedback from at least one staff member each weekend they staff. The feedback will be solicited via an online survey https://ucsd.co1.qualtrics.com/jfe/form/SV_28XYFXGDfnhj0wd

Resident Project/Research:
The resident will be responsible for conducting one research project throughout the academic year that will be presented at the American Association of Psychiatric Pharmacists (AAPP) Annual Meeting. A Resident Research Primer Course has been developed by the UC San Diego Health Research Council to coach residents through the various aspects of the research process. PGY2 psychiatric pharmacy residents who have not previously completed the Research Primer Course are required to attend and demonstrate competence as defined by the Research Council. If necessary, a remediation plan will be designed for residents who do not demonstrate competence. The resident will also be required to conduct a brief Medication Use Evaluation (MUE) project during the year. The topic/location of the MUE will be determined at the beginning of the residency year along with a suitable timeline. A list of project ideas will be generated from the preceptors and the resident is expected to select a project during the first month of the residency year. In addition to the AAPP Annual Meeting, the resident will be expected to present at the UC Collaborative Annual Pharmacy Leadership Conference. The resident is expected to submit the research findings to a peer-reviewed journal for publication prior to end of the residency year. A list of project ideas will be generated from the preceptors and the resident is expected to select a project during the first month of the residency year.

Local/Regional/National Meetings:
The residents will have the opportunity to attend various professional meetings throughout the year. The annual travel stipend is variable, based on funding. The resident will receive a set stipend for the year which can be used at his/her discretion for registration, travel, accommodations, etc. Attendance at UC Collaborative Annual Pharmacy Leadership Conference (or an equivalent conference) to present their resident project is mandatory as well as AAPP Annual Meeting (if platform presentation is not delivered at the AAPP meeting). The cost of attending the AAPP Annual Meeting (or an equivalent conference) will be deducted from the travel stipend, along with any other conferences the resident chooses to attend.

Quarterly Evaluation:
The PGY2 resident will track their progress and development in the areas practice management, clinical quality improvement projects (if not a part of year-long resident project), medication use evaluation, formulary modification, and effective education or training to health care professionals or health care professionals in training. The RPD will review

this quarterly evaluation with the resident during their quarterly meeting and update the resident's customized training plan, as needed. Items which may be included and/evaluated in this longitudinal rotation include committee participation and practice management opportunities such as guideline creation, orderset review, formulary monographs, and other practice leadership opportunities. Effective education opportunities will also be evaluated and may include clinical forums (4 required during residency), journal clubs (2 required during residency), in-services (2 required during residency), teaching opportunities (Therapeutics), and on-demand evaluations as they arise.

Presentations/Teaching:
The resident will have the opportunity to provide many educational lectures to their colleagues throughout the residency year. The resident will be evaluated on his/her teaching and professional outreach participation during the longitudinal Teaching and Continuous Professional Development learning experience.

Grand Rounds:
The resident will deliver a 1-hour CE lecture to the pharmacy staff regarding a topic in psychiatry. Allied health professionals are welcome to attend. Presentations are accredited for continuing education through California Accreditation for Pharmacy Education (CAPE). The resident is expected to present at the Hillcrest location during the designated Grand Rounds dates/times.

Psychiatry Clinical Forums and Journal Clubs:
The resident is required to present 4 (at minimum) Clinical Forum topic discussions and 2 journal club presentations during the year. Residents will have the opportunity to present at a Clinical Forum during the course of the learning experiences and the monthly Psychiatry Discussions. Clinical forums are clinically focused 20-minute presentations based on a recent patient case. Journal club presentations may be presented locally and/or through the AAPP Journal Club Webinar. The objective of the journal club presentations will be to select and critically review a recently published journal article related to psychiatry/neurology. All Clinical Forum and Journal Club presentations need to be presented to the project preceptor at least one week in advance for feedback and comments. Failure to do so will result in delay of the presentation. Please refer to the manual for more information and evaluation strategies.

Skaggs School of Pharmacy and Pharmaceutical Sciences:
Teaching is a large component of our program. The PGY2 resident will have many opportunities to precept/teach and their training will include learning how to incorporate teaching into their clinical responsibilities. UC San Diego is a teaching institution affiliated with UCSD Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS) and UCSD School of Medicine. The resident is required to deliver at least 1 (50-minute) didactic lecture for 3rd year pharmacy students at UCSD SSPPS for the Therapeutics Course. The PGY2 psychiatry resident will also be a conference facilitator for the course. The resident will be required to participate in weekly preconferences and serve as a facilitator for a group of students. The resident will create patient cases and PPCP keys for teaching purposes and may assist with creating/grading written exams. The PGY2 resident will also have multiple opportunities to precept 4th year SSPPS pharmacy students and PGY1 pharmacy practice residents, as well as to work with UCSD physician interns, residents and fellows on most, if not all, rotations. In addition, the resident will be asked to give many educational lectures to their colleagues throughout their residency year.

Publication:
The resident will be required to write a manuscript suitable for publication by the end of the residency year. The purpose of this requirement will be the development of scientific writing and communication skills. The types of publishable literature can include any of the following types of manuscripts:

- Case reports with a review of the literature
- Primary research /original research
- Medication Use Evaluation
- Meta-analysis of a disease state or therapy
- Review article

Assessment Strategy – PharmAcademic:
The PGY2 Psychiatry Specialty Residency Program uses the ASHP on-line evaluation tool called PharmAcademic, which is available for all ASHP-accredited pharmacy residency programs.

Residents who are matched with this PGY2 specialty program are entered into PharmAcademic prior to their arrival in August. The incoming resident completes two pre-residency questionnaires that help the Residency Program Director (RPD) design a residency year that is tailored to the specific needs and interests of the resident:

- ASHP Standard Entering Interests Form

- Goal-Based Entering Interests Form

The RPD uses the ASHP Entering Interest Form and Entering Objective-Based Self-Evaluation to create the residents customized training plan. The Residency Requirement Checklist and Customized Training Plan will be discussed and modified (as necessary) through a collaborative effort between the RPD and resident. In addition, the resident may request schedule modifications throughout the residency year and the RPD will make all efforts to accommodate these requests. Assessment tools will be adjusted as changes are made. The RPD will share changes to the Residency Requirement Checklist and Customized Training Plan via PharmAcademic automatic emails to scheduled preceptors and during quarterly PGY2 Psychiatric Pharmacy Residency Advisory Council (RAC) meetings.

Residents' schedules are entered into PharmAcademic. For each Learning experience, the following assessments are completed:

- Preceptor Assessment of Resident: Summative (for each Learning experience)
- Resident Assessment of the Learning Experience
    - Resident assessment of Preceptor
    - Resident assessment of Learning Experience

Preceptors and residents are encouraged to exchange on-going, daily verbal feedback throughout each rotation experience. Six-week block rotations have a mid-point summative evaluation as well. The Resident and Preceptors are trained and reminded throughout the year to complete evaluations in a thorough (quantitatively and qualitatively) and timely manner. To this end, evaluations may be used, not only as assessment tools, but as tools that Preceptors may turn to for help in guiding Residents to improve, grow and achieve the residency programs and the residents' goals and objectives for the residency year. The RPD reviews all evaluations and solicits verbal feedback from preceptors and residents to provide guidance to help the resident maximize the residency experience.

The Resident will be required to complete the ASHP PharmAcademic exit evaluation and the year-long evaluation of the Residency Program. The results of these year-end Program evaluations are reviewed by the RPD for potential merit and potential action plans are developed in an effort to achieve continuous quality improvement.

Assessment Overview (PGY2 Psychiatric Pharmacy)

It is the resident's responsibility to initiate the evaluation process with each rotation preceptor prior to the end of each learning experience and to schedule at least quarterly meetings with the RPD.

	Frequency	Summative Evaluation (Preceptor)	Preceptor Evaluation (Resident)	Learning Experience Evaluation (Resident)
Orientation / Training	End of Learning Experience	X	X	X
Required Inpatient Learning Experience	End of Learning Experience	X	X	X
Required Outpatient Learning Experience	End of Learning Experience	X	X	X
Elective Learning Experience	End of Learning Experience	X	X	X
Teaching, Project, and Continuous Professional Development	Quarterly	X	X	X
	End of Learning Experience	X	X	X
Operations	Quarterly	X	X	X
	End of Learning Experience	X	X	X
Program Evaluation	End of Residency			X

Development Plan	Quarterly		**X**	

PGY2 Psychiatric Pharmacy Competency Areas, Goals and Objectives (2017 Standard):

- Competency Areas: Categories of the residency graduates' capabilities.
  - Competency Area R1: Patient Care
  - Competency Area R2: Advancing Practice and Improving Patient Care
  - Competency Area R3: Leadership and Management
  - Competency Area R4: Teaching, Education, and Dissemination of Knowledge
- Educational Goals: Optimize the outcomes of diverse populations of inpatients and outpatients with a variety of psychiatric and neuropsychiatric disorders and a range of complexity of problems by providing evidence-based, patient-centered medication therapy as an integral part of an interdisciplinary team.
- Educational Objectives: Resident achievement of educational goals is determined by assessment of the resident's ability to perform the associated educational objective below each educational goal.
- The resident is encouraged to read detailed information about each goal at the ASHP website on PGY2 Competency Areas (click on "Psychiatric – Effective 2017").
- For information about Goals and Objectives Taught/Taught and Evaluated in Learning Experiences, visit PharmAcademic, go the 'Reports' tab, and click on 'Goals and Objectives Taught/Taught and Evaluated in Learning Experiences'.

PGY2 Psychiatric Pharmacy Residency Requirements for Completion / Graduation:

Completion Requirements – Please check all that apply to the resident	
Learning Experiences/Staffing Requirements	
☒ Complete all evaluations in PharmAcademic	
☒ Successful completion of all learning experiences and a minimum of 90% of residency required objectives marked as Achieved for Residency (ACHR) with 100% marked as ACHR in Competency Area R1*	
☒ Disease state appendix	
☒ Staffing (__16___ weekends/year)	
☐ On-call (_____ weekends/year)	
Residency Project	
☒ Project Plan	☒ Platform Presentation at American Association of Psychiatric Pharmacists Annual Meeting, UC Collaborative or UC San Diego Health
☒ Abstract at American Association of Psychiatric Pharmacists Annual Meeting	☒ Final Manuscript
☒ Poster at American Association of Psychiatric Pharmacists Annual Meeting	☐ Qualtrics Resident Research Project closeout form
☒ Research Primer Course (if have not completed previously)	☐ Other (please specify):
Leadership and Practice Management	
☐ M&M qty:_____	☐ Other (please specify):
☒ MUE (including project plan and write up) qty: __1__	☐ Other (please specify):
☐ Orderset review - qty: _____	☐ Other (please specify):
☐ Monograph/Drug Class Review - qty:_____	☐ Other (please specify):
☐ Committee(s) Participation (please specify):	☐ Other (please specify):
Teaching Certificate/Educational Requirements	
☐ Teaching Philosophy initial and final	☒ Grand Rounds
☐ Small Group Teaching (minimum 5 for Teaching Certificate) ☐ Attend/Complete all required SDPRL assignments	☒ Clinical Forum - qty: 4_____
	☒ Journal Club - qty: 2_____
☒ Didactic Lecture (please specify): SSPPS Therapeutics (50 minutes minimum)	☒ RN in-service - qty: 2_____
	☐ MD in-service - qty: _____
☐ SSPPS OSCE - qty: _____	☐ In-service to audience of choice - qty:_____
☐ Teaching Certificate Program Conferences	☐ Tech-talk - qty: _____
☒ Publication Submission	☒ Teaching Opportunity (please specify): SSPPS Therapeutics Conference, 10 weeks
☐ Other (please specify):	☒ Other (please specify): Monthly Psych Discussion Attendance
☐ Other (please specify):	☒ Other (please specify): 2 presentations at Monthly Psych Discussion (can count toward Clinical Forum)

*Successful completion is defined as all learning experience objectives marked satisfactory progress (SP), achieved (ACH) or achieved for residency (ACHR) by the final evaluation of the learning experience.

Appendix K: Solid Organ Transplantation

PGY2 Solid Organ Transplantation Pharmacy Residency Program Overview
National Matching Service Code: **635476**
https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/programs/transplant/

The UC San Diego Health Department of Pharmacy offers a one-year specialty residency in solid organ transplantation beginning either the last Monday of July, or first Monday of August, depending on the Human Resources orientation schedule and upon licensure in California (see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Scope:
UC San Diego Health consists of four acute care hospitals (UC San Diego Medical Center in Hillcrest, Sulpizio Cardiovascular Center, Jacobs Medical Center and East Campus Hospital) and associated outpatient clinics. UC San Diego Health is also affiliated with Rady Children's Hospital-San Diego, the Veterans Affairs San Diego Healthcare System, and the Sharp Memorial Hospital Joint Blood and Marrow Transplant Program. The Health System is affiliated with the UC San Diego School of Medicine and the UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS). The Department of Pharmacy provides clinical services in both the inpatient and outpatient setting to a broad spectrum of patient populations including internal medicine, surgery, cardiology, oncology, solid organ transplant, bone marrow transplant, infectious diseases, nephrology, cystic fibrosis, pulmonary hypertension and HIV/AIDS.

This specialty residency balances service, research, and teaching opportunities and is tailored to the individual. Experiences will include care across the transplant continuum of care for all offered organs include heart, lung, kidney, and liver. The emphasis will be placed on providing excellent pharmaceutical care in conjunction with the multidisciplinary transplant team. Teaching opportunities include leading the transplant elective, didactic, therapeutics conference leader, and clerkship preceptorship of first-year pharmacy practice residents and fourth-year UC-San Diego pharmacy students. A residency project will be completed and presented to a national or regional audience with intent of publication.

Program Purpose:

PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions, and board certification in the advanced practice area, if available.

Number of residency positions available: 2 residents are accepted each year.

Resident Pay and Benefits: Refer to UC San Diego Health Pharmacy Residency website (https://health.ucsd.edu/for-health-care-professionals/education-training/pharmacy-residency/salary-benefits/) for details on salary and benefits

Application policy and procedures will follow the University of California System-wide Early Commitment (SWEC) process.
https://www.ucop.edu/uc-health/_files/systemwide-operations/pharmacy/pdf-files/uc-swec-pgy2-early-commitment-candidate-selection-policy-and-procedure-2023.12.15.pdf

If commitment not obtained through SWEC:
All applicants must be enrolled in the Resident Matching Program. To facilitate this enrollment process and for further information, please visit the following website: http://www.natmatch.com/ashprmp. Applications will be accepted when PhORCAS opens and are due by January 2nd. Applications submitted through PhORCAS will include the following:

1. Letter of intent
2. Current *Curriculum Vitae* with all experiential completed and anticipated rotations as well as pharmacy work experience.
3. Three electronic references are required from preceptors who can directly comment on your clinical and practice skills.
    a. **Note**: Please have recommendation writers complete the electronic reference form within PhORCAS with detailed characteristic and narrative comments. One to two areas of improvement or constructive feedback that the recommender feels the candidate should continue to work on as a PGY2 resident should be identified. A separate letter of recommendation is NOT required and discouraged.
4. Letter of endorsement from PGY1 Residency Program Director (if RPD is not one of the three preceptors references mentioned above)

Interviews to be held in January-February.

Requirements of Residents Prior to Starting the Program:
(see "Pharmacy Residency Appointment Requirements" in the Pharmacy Residency Manual (linked here)).

Program Structure:

Required learning experiences:
(duration ranges pending schedule availability, resident competency/needs, resident preferences)

- Orientation Training: 1-2 weeks if PGY1 at UCSD, 2-4 weeks for external PGY1
- Inpatient Abdominal Transplant: 2 blocks of 5-6 weeks
- Inpatient Heart Transplant/LVAD: 2 blocks of 3-5 weeks
- Inpatient Lung Transplant: 2 blocks of 3-5 weeks
- Ambulatory Care Clinics for Abdominal Transplant: 4 weeks
- Ambulatory Care Clinics for Cardiothoracic Transplant: 4 weeks
- Longitudinal clinic: 2 blocks of 25 weeks, half day once weekly (day of the week determined by which clinic is chosen)
- Practice management: longitudinal for the whole year, meeting once every quarter for review of progress in areas of practice management, clinical quality improvement projects, education/training to health care professionals
- Research project: longitudinal for the whole year, 4 project weeks are allotted quarterly
- Staffing: longitudinal for 16 weekends throughout the whole year (both Saturday and Sunday) plus 1 minor holiday (3 day weekend) and 1 major holiday (4 day weekend)
- Teaching (solid organ transplant elective): 20 week experience, meeting for a half day once weekly (day of the week subject to change each year based on School of Pharmacy scheduling)

Supplemental Learning Experience Options (2-3 blocks of 4-6 weeks):

- Transplant Infectious Disease
- Informatics
- Pulmonary (Jacobs) ICU
- Cardiovascular ICU)
- Academia
- Informatics
- Additional learning experiences can be created as needed based on resident interest and preceptor availability

Longitudinal Clinic Experience:
The resident will choose two 6 month longitudinal clinics to participate in throughout the year. Each clinic is ½ day per week. Available clinics include: Perioperative Kidney Transplant, Long-Term Kidney Transplant, Liver

Transplant, Heart Transplant/LVAD, and Lung Transplant.

Research Project:
The resident will serve in a lead role for a research project throughout the year that will be completed and formally presented. A Resident Research Primer Course has been developed by the UC San Diego Health Research Council to coach residents through the various aspects of the research process. PGY2 transplant residents who have not previously completed the Research Primer Course are required to attend. More information can be found in the Resident Manual, Appendix O. A list of project ideas will be generated by preceptors, and the resident is expected to select a project during the first month of the residency year. Project time will be given during the resident year. During project weeks, the resident is expected to communicate goals/objectives by day 1 of the week (to RPD and relevant preceptors) and a summary of completed objectives/deliverables by the end of the following week.

CQI Project:
The residents will complete a Continuous Quality Improvement project during the year. A list of project ideas will be provided to residents at the start of their residency year. The project will be selected during the first month of the residency year and will prepare a final write-up or PDSA.

Teaching Experience:
The resident will precept students and PGY1 residents on assigned learning experiences and also have the option to participate as a leader in therapeutic case conference at SSPPS. Additionally, the resident may elect to lead the didactic transplant elective offered at the school of pharmacy. Also, focus is placed on teaching patients and caregivers pre- and post-transplant in both the inpatient and outpatient setting.

Transplant Policy and procedure review/update:
The resident will assist in writing or updating a minimum of 1 transplant protocol/guideline or policy and procedure during the residency year. This may or may not overlap with CQI and/or research project.

Presentations:
The residents will give many educational lectures to their professional colleagues and patients throughout their residency year. The presentations will include a 1-hour Grand Rounds CE lecture to the pharmacy staff regarding a topic in transplantation. Additionally, the resident will be given the opportunity to give in-service lectures to various staff and educational presentations for the transplant patient support groups. The resident will also present a minimum of 1 journal club throughout the year.

Staffing:
Staffing will be incorporated into the residency experience with weekend shifts that provide the opportunity for PGY2 residents to cover the inpatient transplant services. The PGY2 solid organ transplant residents are required to staff 16 weekends (which includes 1 minor holiday weekend PLUS 1 major holiday (Thanksgiving, Christmas, or New Year's). To help provide more formative feedback, residents are expected to seek feedback from at least one staff member each weekend they staff. The feedback will be solicited via an online survey and incorporated into PharmAcademic evaluations.

Quarterly Evaluation:
The PGY2 resident will track their progress and development in the areas of practice management, clinical quality improvement projects, and effective education or training to health care professionals or health care professionals in training. The RPD will review this quarterly evaluation with the resident during his or her quarterly meeting and update the resident's customized training plan, as needed. Items which may be included and/or evaluated in this longitudinal rotation include committee participation and practice management opportunities such as guideline creation, formulary monographs, and other practice leadership opportunities.

Professional Meetings:
The resident will have the opportunity to attend various professional meetings throughout the year. Residents are encouraged to attend a transplant specialty meeting (e.g. American Transplant Congress, ISHLT Annual Meeting).

Teaching Certificate:
Participation in the Teaching Certificate program is optional and will be discussed on a case by case basis. Please refer to Appendix M in the Residency Manual for more information on these topics.

Assessment Strategy – PharmAcademic:
The PGY2 Solid Organ Transplant Specialty Residency Program uses the ASHP on-line evaluation tool called PharmAcademic, which is available for all ASHP-accredited pharmacy residency programs.

Residents' schedules and assigned objectives are entered into PharmAcademic. We have chosen to use the PharmAcademic evaluation tools for our Learning Experiences. For each learning experience, the following assessments are completed:

- Preceptor assessment of resident: Summative (for each learning experience)
- Resident Self-Assessment: Summative-self (for each learning experience)
- Resident Assessment of the learning experience
    - Resident assessment of preceptor
    - Resident assessment of learning experience

Preceptors and residents are encouraged to exchange in ongoing, daily verbal feedback throughout each rotation experience. Residents are expected to provide constructive feedback to the preceptor in their PharmAcademic evaluation at the end of the learning experience. This feedback, along with preceptor self-evaluation is helpful in developing worthwhile and relevant preceptor development programming. The resident and preceptors are trained and reminded throughout the year to complete evaluations in a thorough (quantitatively and qualitatively) and timely manner. To this end, evaluations may be used, not only as assessment tools, but as tools that preceptors may turn to for help in guiding residents to improve, grow, and achieve the residency program's and the residents' goals and objectives for the residency year. The RPD reviews all evaluations and solicits verbal feedback from preceptors and residents to provide guidance to help the resident maximize the residency experience.

The residents discuss their program goals and interests quarterly (Quarterly Update and Customized Training Plan) with the RPD to evaluate progress in meeting the residency goals and to set or modify goals for the remainder of the year. Residents may meet, as needed, as their interests change throughout the year. The resident may request schedule modifications throughout the residency year, and the RPD will make all efforts to accommodate these requests. Assessment tools will be adjusted as changes are made.

Residents must complete the ASHP PharmAcademic exit evaluation. Residents also are requested to complete a year-long evaluation of the residency program.

The results of these year-end program evaluations are reviewed by the RPD and the Resident Advisory Committee (RAC) for potential merit and potential action plans are developed in an effort to achieve continuous quality improvement.

PGY2 Solid Organ Transplant Competency Areas, Goals and Objectives (2018 Standard):

- Competency area: Categories of the residency graduates' capabilities
    - R1: Patient Care
    - R2: Advancing Practice and Improving Patient Care
    - R3: Leadership and Management
    - R4: Teaching, Education, and Dissemination of Knowledge
- Educational Goals: Goals listed under each competency area are broad statements of abilities.
- Educational Objectives: Observable, measurable statements describing what residents will be able to do as a result of participating in the residency program.
- The resident is encouraged to read detailed information about each goal at the ASHP website https://www.ashp.org/-/media/assets/professional-development/residencies/docs/pgy2-transplant-cago-2017.ashx?la=en&hash=1B1C07A56083EA715EDEBA0474D72D45FFC0B1DF
- For information about Goals and Objectives Taught/Taught and Evaluated in Learning Experiences, please visiting PharmAcademic , go the 'Reports' tab, and click on 'Goals and Objectives Taught/Taught and Evaluated in Learning Experiences'.

PGY2 Solid Organ Transplantation Residency Requirements for Completion/Graduation:

- Successful completion of all learning experiences (all objectives marked satisfactory progress (SP), ACH or achieved for residency (ACHR) by the final evaluation). Any expectations of the residents that are not met or learning objectives with needs improvement (N/I) from an on-demand or scheduled evaluation will result in a meeting between the learning experience preceptor, RPD, and resident and a plan of correction will be formulated. Failure to complete the plan of correction, may result in disciplinary action.
- Complete all evaluations in PharmAcademic
- ≥90% of objectives marked "Achieved for the Residency" by the end of the year (as evaluated by individual rotation preceptors or by the RPD upon final review of the resident's progress). All patient care goals (R1) and objectives must be achieved.
- Completion of disease state appendix
- Completetion of transplant staffing requirement (16 weekends per year)
- Completion of required presentations: 1 Journal Clubs, 1 Grand Rounds, 1 In-service
- Residents will be required to complete a Research Primer Course at the beginning of the residency year (if not already completed during PGY1) and demonstrate competence as defined by the Research Council. If necessary, a remediation plan will be designed for residents who do not demonstrate competence.
- Completion of a residency project; including project plan, platform presentation at a suitable conference/meeting and/or UC Collaborative
- Completion of a project final manuscript suitable for publication
- Protocol or policy update/creation
- Quality project
- Twelve months minimum is allotted to successfully complete the core requirements. If a core rotation must be repeated, then elective time shall be used. If the above requirements are not met in full, the residency certificate may be withheld at the discretion of the residency director

Appendix L: Guidelines for Pharmacy Presentations and Projects

Presentations provide an opportunity for pharmacy residents to refine their teaching style, disseminate important information, create educational materials, and manage deadlines while multitasking other responsibilities. Skills learned here will be valuable in almost all careers as a pharmacist.

Pharmacy residents are required to give educational presentations to a variety of health care professionals throughout their residency year. Details of most presentations are listed below. On-demand learning opportunities, which are not described below, may arise throughout the year and the preceptor or RPD will explain each opportunity to the resident.

Each pharmacy resident is expected to complete the Education Calendar located on iShare and upload presentations in PharmAcademic, as instructed by the RPD.

- File names for all presentations should include the following items: Title_Type of Presentation_Name_Date.
    - For example: Impact of Moderate Hyperchloremia Outcomes in ICH Patients Treated with CI Hypertonic Saline_Journal Club_Benny Yau_2017.12.12

Each presentation should include the following information:

- Identify the presenter (full name and credentials)
- Date of the presentation
- Email contact information for the presenter; if a resident is presenting, the name and email of their preceptor should also be included
- Residency program (if resident is presenting)
- 2-3 keywords that describe what the presentation is about
- Whenever possible, residents should avoid trade names and undefined abbreviations in their presentations.

General Helpful Hints:

- Be familiar with all applicable information but only present pertinent information to convey your take-home learning points
    - For patient-based presentations (clinical forum or M&M), this may include: important patient background information, medication list, pertinent labs, clinical progress, discharge plan.
    - For didactic discussions (journal club or grand rounds) be familiar with: important background information, previous studies conducted, anticipated publications, current standard of practice
- Get the experts involved when preparing the presentation
- Encourage audience participation that is appropriate for the format. Ask questions to generate discussion or provoke critical thinking.

Pharmacy Presentations consists of the following formats:

Grand Rounds

Journal Club

Morbidity and Mortality (M&M)

Clinical Forums

Monograph

Medication Use Evaluation (MUE)

Nursing or Physician In-Service

Grand Rounds Continuing Education Series

A Grand Rounds topic can be on any controversial disease state treatment approach, therapeutic dilemma, new drug/indication, or critical evaluation of new guidelines. Literature evaluation is a required component of the presentation. Pharmacists and pharmacy technicians can receive CAPE-accredited CE's for attending your Grand Rounds.

IMPORTANT POINTS

- The live CE program is available to all pharmacy departments in the UC Collaborative. It is expected that you will prepare a high-quality presentation.
- Adhere to the timeline and submit all documents/files on time. You are responsible for submitting a timeline to your preceptor and adhering to deadlines. Be respectful of your preceptors' time and allow ample time for them to provide feedback at all stages of the program development.
- Start early and be in communication with the CE committee, RPD, and content preceptor about your progress
- A change to the live presentation date will not be considered unless it is in the event of illness or other unavoidable circumstances. Change requests must be approved by the CE chair and your RPD. **Inadequate preparation is not an acceptable reason for postponement.**
- The presentation title must be submitted on time (4 weeks prior to the presentation). If this date is missed, participants may not receive CE credit.
- The live presentation and presentation recording **must be at least 50 minutes long**.
- Be familiar with navigating the audio/video technology used during the presentation.

COMMITTEE CONTACTS

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- Paricheh (Peach) Azimi, PharmD (PGY1 Acute Care RPD): pazimi@health.ucsd.edu
- Shanna Block, PharmD (BCOP review programs only): sblock@health.ucsd.edu

PREPARATION TIMELINE

Contact content preceptors as soon as possible to ensure their availability. Note that the Presentation Outline is due to the preceptor at least 10 weeks prior to the presentation date.

You are responsible for constructing a timeline that works for you and your preceptor. Please consider PTO and other obligations (both yours AND your preceptors' when creating this timeline. Submit the proposed timeline to your potential preceptor and ensure that they are available to review your work within the timeline and due dates.

When creating a timeline, be mindful of the submission deadlines outlined below for all documents, assuring adequate time for preceptor review and revisions prior to submission to the Committee. All documents (except for CV) should be reviewed by preceptors prior to submission to the CE Committee. Although the timeline should reflect the needs of the presenter and preceptor, all due dates for submissions are firm.

All documents must be approved by your content preceptor prior to submission to the CE Committee, except for CV.

At least 12 weeks prior Due date: __/__/____	□ Identify topic and preceptor □ Start research and prepare presentation outline □ **DUE** Submit finalized timeline to RPD/preceptor once finalized via Docusign: Grand Rounds Timeline Form □ Reserve presentation slot on the iShare Pharmacy Education Activities Calendar
At least 10 weeks prior Due date:__/__/____	□ **DUE**: Submit presentation outline to preceptor for review. Include general structure and key studies. □ **DUE**: Submit Course Description to preceptor for review
At least 8 weeks prior Due date:__/__/____	□ **DUE**: Submit presentation outline to CE committee* □ **DUE**: Submit Course Description to CE Committee*
At least 4 weeks prior Due date:__/__/____	□ **DUE**: Submit presentation title to CE Committee □ **DUE**: Submit slides (1st draft) and coversheet to preceptor. Notify CE committee of this submission □ Update Education Calendar entry with presentation title
At least 2 week prior Due date:__/__/____	Schedule practice session/ run thru- include preceptor and RPD. Slides should be essentially DONE at this point.
At least 1 week prior Due date:__/__/____	□ **DUE**: Complete slide revisions. Submit to preceptor □ Obtain QR code from Chris □ **DUE**: Submit coversheet and CV to CE Committee – also post to calendar
At least 1 day prior Due date:__/__/____	□ **DUE**: Slides (FINAL) to CE Committee – also post to calendar** □ **DUE:** Presentation recording to CE Committee. Needs to be minimum 50 minutes.
Day of presentation Due date:__/__/____	□ Ensure all fields are completed on calendar entry

*Submit documents only after incorporation of preceptor feedback and completion of revisions

** Ensure 1st slide includes: title, presenter name/email, preceptor name/email

REQUIRED DOCUMENTS

- Coversheet
- Slide Presentation
- Slide presentation with voice recording formatted to be downloadable to YouTube (mp4). The CE committee is responsible for posting. This should be completed prior to the live presentation. **E sure that the recording is at least 50 minutes long.**
- Current CV, including pharmacist licensure (if obtained)

Coversheet Components

- Course description
    - A three-sentence description including background information, statement of the problem addressed, and a statement of what the program will address
- Educational Goals Statement
    - A "goal statement" provides the reason the course is being taught. The following is an example of a goal statement (please note the general nature of this statement):
    - EXAMPLE: Describe the physiological changes that may occur during a myocardial infarction.
- Educational Objectives
    - "Objectives" expand on the goal statement by detailing participant performance, conditions of learning, and methods for measuring learning.
    - EXAMPLE: List five signs of congestive heart failure.
- Assessment Questions
    - **Have at least one question for each objective, minimum of 5 total**
    - A minimum of 3 questions must be multiple choice. The rest may be true/false.
    - Questions should be listed in the same order as the objectives
    - Include slides containing the questions and discuss the correct answer as part of the presentation
- Reference
    - List full citations for all references used

Slides

- Avoid text-heavy slides (many lines, small font)
- Minimize text-only slides, especially several in a row
- Obscure patient identity; never use the patient's name, initials or medical record number in a presentation; this is a clear HIPAA violation. Dispose of all patient-identifying materials in the Confidential Documents Trash waste bins
- Include pertinent citations on all slides
- Include page numbers
- Remember to incorporate Assessment Questions into the presentation

Faculty Biographies (CV)

- Faculty biographies should be detailed and indicate suitable expertise in the field addressed by the continuing education program to merit instructorship.
- Please be sure that it is updated, reflecting pharmacy school graduation, training, and licensure

OTHER INFORMATION

Tips on a successful presentation

- Select a subject that is current and of interest to the audience. The topic/question must be focused and applicable to pharmacists' practice. Straight-forward topics lacking depth do not attract an audience.
- Keep your preceptor involved in developing the content and the presentation
- Be enthusiastic about your topic; this is the most important attribute of a good presentation! If you're not enthusiastic about your topic, your audience certainly won't be either.
- Think about your hook. Pose a question or describe the dilemma.
- Use each slide as a jumping-off point for discussion, not as the complete thought. Do NOT just read your slides! This is the surest way to sabotage your talk.
- Be sure all components on the slide are visible from the audience member's seat
- Arrange a little diversion such as a change in format or audience participation (consider inserting your test questions) about every 15 minutes
- Familiarize yourself with the features of Zoom/AV setup before your presentation day

Handling questions from the audience

- Have the audience save questions until the end of your presentation
- Before responding, repeat the question to assure everyone heard the question
- If you don't know the answer, don't make one up; refer to an expert that may be in the audience, or offer to investigate the question for a later response
- Thank the audience, your preceptor and the CE committee

Moderator/Preceptor

- Identify a pharmacist to help develop content and the presentation
- CE Committee members will also provide feedback on suggested content
- A moderator from the committee will be either in person or online to assist with technical issues at the live presentation

Evaluation

- The CE committee will provide the evaluation tool (Qualtrics survey)

Sample Cover Sheet for Grand Rounds

Title Here
Speaker Name, PharmD
Speaker Credential (ie: PGY1 Acute Care Pharmacy Practice Resident, UC San Diego Health)
UC San Diego Health Department of Pharmacy
Dates (include all presentation dates)

Course Description: Three sentence description of the topic (see example)
Vancomycin is a glycopeptide antibiotic that is widely used in the treatment of gram-positive infections as well as for empiric coverage when the cause of infection is unknown. While it is understood that vancomycin can be nephrotoxic at supratherapeutic doses, it is less clear what other factors may contribute to the development of AKI in these patients. This course will review current literature to evaluate the degree to which concomitant antibiotics, differing dosing strategies, and selection of pharmacokinetic monitoring methods may affect the rates of acute kidney injury in patients receiving vancomycin.

Goals: Broad Statement (see example)
To identify factors contributing to the development of vancomycin-induced AKI and to discuss monitoring and dosing strategies to reduce risk.

Objectives: Use more description verbiage and action words to identify key discussion points (see example)
1. List 4 risk factors associated with developing acute kidney injury (AKI) while on vancomycin
2. Describe the role and feasibility of AUIC monitoring in clinical practice
3. Compare and contrast the differences between intermittent infusion and continuous infusion of vancomycin and their impact on nephrotoxicity
4. Explain how pharmacists can play a key role in reducing the risk of vancomycin induced nephrotoxicity

Test Questions: Create 5-7 questions. Each objective identified should have at least one test questions associated with it. Minimum is five (5) questions, up to two (2) may be T/F (see example)
1. Which of the following is NOT a risk factor for developing vancomycin-induced nephrotoxicity?
    a. Total daily vancomycin dose > 4g
    b. Duration of therapy > 7 days
    c. High serum trough levels > 15 mg/L
    d. Concomitant use of meropenem
2. True/False: The broth micro-dilution method of determining minimum inhibitory concentration (MIC) is more sensitive than the E-test method.
3. According to published literature, the likely area under the curve (AUC) threshold for nephrotoxicity is:
    a. >500
    b. >700
    c. >1100
    d. >1500
4. The 2009 IDSA/ASHP recommends targeting which of the following parameters for serious infections?
    a. Vancomycin peaks > 40 mg/L
    b. Vancomycin troughs = 15 – 20 mg/L
    c. AUC/MIC > 300
    d. Time > MIC = 90%
5. True/False: Vancomycin troughs > 15 mg/L are always required to achieve an AUC/MIC > 400

Answers: 1. D 2. False 3. B 4. B 5. False

Journal Club

Overview

Journal club conferences are intended to present a relevant article on a current or controversial drug therapy topic. Pharmacy residents should provide focused critique of the article and its place in therapy at UCSDH, while also discussing other relevant literature related to the subject.

Pharmacy resident(s) will present an article that they have chosen and has been approved by an advisor. The summary of the article will be brief in nature (generally <15 minutes) allowing for active discussion of the Population, Intervention, Endpoints, Statistics (PIES) analysis, conclusions, and takeaways in the remaining time. A handout is required, with a complete PIES analysis for the presenter's version (the audience version should have a blank PIES analysis page which they will fill out independently). Information on what PIES analysis is and how to complete one can be found on iShare (Pharmacy Presentations -> Journal Club or Journal Club Folder on iShare).

The residents will work with the RPD or their preceptors on journal club presentations. Attendance is mandatory, unless patient care activities prohibit or otherwise directed by resident's RPD.

Contact: Craig Stevens, PharmD: c2stevens@health.ucsd.edu

Procedure

PGY1 presenters MUST select a faculty/preceptor advisor (content specialist) who will discuss the article and analysis with them ahead of the presentation date. PGY2 presenters are encouraged to do this. The preferred subject matter for journal articles is medications and pharmacotherapy. The preferred journal format is a randomized controlled trial; however case reports and retrospective review articles may be considered. Please check with your preceptor if you have any doubts or reservations regarding your article.

A suggested article list can be found on iShare (Journal Club Folder, as described above). The resident should also refer to a list of suggested journals:

- Annals of Internal Medicine
- Annals of Pharmacotherapy
- Clinical Infectious Diseases
- Chest
- Circulation
- Critical Care Medicine
- Journal of Pediatrics
- Journal of the American Medical Association
- New England Journal of Medicine
- Pharmacotherapy
- Other, specific to specialty and/or interest

Presentation format:

Background (~5 min)

- Review of pertinent background information and studies
- Why this article is worth discussing

Overview (~5-10 min)

- Presentation of the author's hypothesis and null hypothesis
- Report study methods, inclusion and exclusion criteria, endpoints
- State statistical methods used for analysis

- Describe results and author's conclusions

Analysis (remainder of time)

- Facilitate active discussion of the study's strengths and weaknesses, using the PIES format
- State your own conclusion
- Discuss the study's applicability and describe its potential impact at UC San Diego Health

Timeline

At least 3 weeks prior __/__/____	☐ Select article and advisor (content specialist). An advisor may be selected from personal experience or the Special Interest Directory on iShare ☐ Schedule a time within the next week to meet with your advisor to discuss the article ☐ Review pertinent literature (index trial and background trials) ☐ Add journal club (and required information) to iShare Pharmacy Activities Calendar
At least 2 weeks prior __/__/____	☐ Give advisor a copy of your completed journal club handout and analysis ☐ Follow up with your advisor over the next week regarding suggested edits and to discuss any questions you have regarding the article
At least 1 week prior __/__/____	☐ Email your advisor and journal club moderator (if assigned) and RPD a copy of your final journal club handout including PIES analysis ☐ Attach a copy of the PDF of the selected article and your journal club handout (without PIES analysis) to the iShare calendar using naming standards.
Day of presentation and follow up __/__/____	☐ Have a great presentation! ☐ Upload PIES analysis and number of attendees to iShare calendar

Morbidity and Mortality

Overview

Morbidity and Mortality (M&M) Conferences provide a forum for open discussion of patient safety problems. The intent of the M&M conference is to inform frontline providers about adverse events that occur within the health system and to engage their input in system improvements, thereby encouraging reporting and promoting systems-based thinking. Preparing an M&M conference provides an opportunity to discuss many of the most interesting and challenging cases. A well-organized M&M conference creates a lasting impression for the attendees. Most importantly, these conferences can ultimately improve the care of the patients who entrust us with their care.

UC San Diego promotes a culture of safety by:

- Displaying a commitment to create and support safe systems
- Providing an atmosphere in which individuals feel free to identify and describe known safety threats and errors without fear of unjust blame or reprisal
- Examining known safety threats and errors with openness, honesty, and respect for individuals and the complexity of organizations and systems
- Not holding individuals personally accountable for system flaws over which they have no control
- Minimizing hierarchies so that staff at all levels are able to respectfully question the contributions of other disciplines to error-prone processes

This culture of safety emphasizes “learning rather than blame”; errors are used as the basis for improvement.

Contact: Kelli Keene, PharmD: kakeene@health.ucsd.edu

Procedure

Case Selection:

The Medication Safety Pharmacist Specialist, Dr. Kelli Keene, will help residents select cases for presentation with appreciable morbidity or mortality [actual harm (i.e., death, other complication) or potential harm]. These cases will be selected from UC San Diego’s iReport system. Other cases may be suggested for consideration, but must also be reported directly into the iReport system.

Upon case selection, please add to the Pharmacy Activities Calendar. Once completed, the presentation should be attached to the Pharmacy Activities Calendar. Please ensure identifiable patient information has been taken out of the presentation.

Case presentation should be 20-30 minutes, including discussion and questions.

The presentation should be prepared using PowerPoint. Prepare objectives that can be used to structure the presentation. The slide show should be complete and presented to the preceptor at least one week before the scheduled conference date. A one-page handout may be provided.

The first part of the presentation will describe the case as it presented from the pharmacist's perspective and its initial evaluation If relevant, may include:

- Identification
- Chief Complaint
- Brief history of the present illness
- Significant past medical history and medications
- Appropriate family, social, developmental, and diet histories
- Physical examination, laboratory studies, radiology studies

Helpful tips:

- Provide enough information to generate discussion; remember not to give key information or the diagnosis/decisions away; rather, ask the audience to commit to a course of action (by show of hands) at key junctures of the case (e.g. “how many of you would ____ at this point?”)

Request audience input regarding diagnostic studies and therapy decisions; initially show medication lists or lab results without interpreting them; later, you may go back to point out abnormalities after the audience has committed to a course of action using their own interpretations

The second half of the case should discuss the hospital course and describe the evaluation and decision-making. The format of this presentation is NOT to provide a didactic lecture on the presented topic. Rather, it will include a discussion of the presenter's thought processes.

Helpful Tips:

- Teaching points should be brief and pertinent to pharmacy practice
- Emphasize solutions to improve future care; if there was a bad outcome, it is important not to place blame on the individuals involved but to present cases anonymously to enhance teaching
    - Focus on system processes that contribute to the medical error It is useful to discuss the many unique aspects of our practice environment that predispose to medical mistakes, including:
        - multi-tasking
        - frequent interruptions during shifts
        - inadequate communication and continuity during shift change
        - varying availability of diagnostic studies
        - patient volume

You may include a discussion of your thought process including interpretation of policies and evidence-based guidelines used. Other things to include in your presentation:

- Clinical reasoning behind actions
- Literature reviewed in context and references

A one-page hand-out or synopsis may be used at the discretion of Dr. Keene; cover the epidemiology, differential diagnoses, and management; cite any recent or "landmark" articles regarding the diagnosis or treatment and have copies of the article for attendees (distribution of key articles via pdf files electronically saves a lot of paper and copying time)

Moderator

A clinical pharmacist will serve as the preceptor and moderate the conference as needed.

It is paramount that you invite other healthcare providers (i.e., physicians, nurses, etc.) that have been involved in the case.

Related Reading

- Using Patient Safety Morbidity and Mortality Conferences to Promote Transparency and a Culture of Safety in The Joint Commission Journal on Quality and Patient Safety
- The Joint Commission Framework for a Root Cause Analysis and Action Plan

Timeline

At least 2 weeks prior __/__/____	☐ Select case ☐ Identify a clinical pharmacist preceptor who is the subject expert in the topic/case ☐ Add required elements to the iShare Pharmacy Activities Calendar
At least 1 week prior __/__/____	☐ Review presentation with the preceptor and Medication Safety Pharmacy Specialist
Day of presentation and follow up __/__/____	☐ Have a great presentation! ☐ Update iShare calendar with final presentation, number of attendees, other elements

Clinical Forum

Overview

Clinical Forums provide an opportunity for open discussion of interesting patient problems, relevant guideline updates, or unique clinical disease state management. The intent of the clinical forum is to inform frontline providers about clinical questions or problems that have taken time and effort to answer. The presentation provides an opportunity to discuss interesting and challenging points of a particular case or disease state. A well-organized clinical forum creates a lasting impression for the attendees. Most importantly, these conferences can ultimately improve the care of the patients who entrust us with their care.

Objectives

To discuss patient outcomes for the purpose of educating staff, residents, and students. Review relevant literature, guidelines, and other pertinent medication resources with the goal to educate and raise awareness of the topic at hand.

Contacts

As most clinical forums are paired with a learning experience, the learning experience preceptor or designee will serve as the contact. Residents may also collaborate with content experts within the department as applicable.

Procedure

The resident should prepare audience learning objectives that can be used to structure the presentation. The slide deck should be complete and presented to the preceptor at least one week before the scheduled conference date or as directed by the preceptor. A one-page handout may be provided. Attach presentation (in PDF form) to the Pharmacy Activities Calendar. Each file should be named per the naming standards. Create and upload Zoom link to Pharmacy Activities Calendar.

Case Selection: Select a patient case which presented a novel clinical situation. The case presentation should be 20-30 minutes, including discussion and questions. The presentation should be prepared using PowerPoint.

The first part of the presentation is to describe the case as it was initially presented and evaluated, and should include:

- Identification
- Chief Complaint
- Brief history of present illness
- Significant (to the case only) past medical history (including family history, social history)
- Significant (to the case only) medication and diet history
- Significant (to the case only) physical exam, Laboratory studies, Radiology studies

The second half of the case should discuss the hospital course and describe the evaluation and decision making.

- You may include a discussion of your thought process including interpretation of policies and evidence-based guidelines used.

Other things to include in your presentation:

- Emphasis of clinical reasoning from case
- Contextual literature review (appropriately referenced)

Disease State Management: Select a novel disease state. The presentation should be 20-30 minutes, including discussion and questions. The presentation should be prepared using PowerPoint.

The presentation should include:

- Epidemiology
- Pathophysiology
- Clinical presentation
- Diagnostic criteria
- Guideline summarization

- Therapeutic management

Suggested Timeline

2 weeks prior __/__/____	☐ Select a case or disease state topic, title and enter in information into the iShare Pharmacy Activities Calendar
1 week prior __/__/____	☐ Submit presentation slides to clinical preceptor for review, if requested ☐ Attach finalized presentation to iShare calendar
Day of presentation and follow up __/__/____	☐ Have a great presentation! ☐ Ensure all fields are completed in iShare calendar, including number of (physical) attendees; upload presentation slides if not already

Monograph

Overview

PGY1 Pharmacy Residents will be required to complete at least one medication monograph or formulary modification SBAR during their residency. PGY2 Pharmacy Residents may complete a monograph or similar at the discretion of their program director.

Objectives

To evaluate and apply evidence-based principles, synthesize information from available literature, and incorporate relevant sources of information pertaining to the medication requested for formulary addition or expansion while preparing a medication monograph or formulary modification SBAR and presenting to committees, if appropriate.

Contacts

The Medication Use Policy and Outcomes Specialist, the Pharmacy and Therapeutics (P&T) Committee Coordinator, and/or the Oncology P&T Committee Coordinator, all of whom are members of and can be contacted via the group email formularymanagement@health.ucsd.edu.

Procedure

The New Medication and Treatment Plan Process defines the process of adding or modifying medications with respect to formulary status, and dictates the steps needed and approximate timelines associated with this process.

Medication Use Evaluation

Overview

PGY1 Pharmacy Residents will be required to complete at least one medication use evaluation during their residency. PGY2 Pharmacy Residents may complete a medication use evaluation or similar at the discretion of their program director.

Objectives

To identify areas for improvements in patient care management based on data, collect and synthesize data relevant to the question, and recommend targeted interventions based on the analysis of the data collected.

Contacts

The Medication Use Policy and Outcomes Specialist will work with subject matter experts in the field of the topic of the medication use evaluation to oversee the methodology and deliverables of the medication use evaluation.

Procedure

The Medication Use Evaluation Instruction Document defines the process of conducting a medication use evaluation, provides templates for deliverables, and dictates the steps needed and approximate timelines associated with this process.

Nursing or Physician In-Services

Overview

Nursing or Physician in-services are assigned for several learning experiences throughout the year. Pharmacy residents will work with the preceptor on in-service presentations.

Contacts: As most in-services are paired with a learning experience, the learning experience preceptor or designee will serve as the contact.

Procedure

Pharmacy residents are strongly encouraged to seek guidance from a nursing or physician colleague(s)/pharmacy preceptor(s) for selection of relevant - topics. The preferred subject matter should be nursing or physician facing and focus on pharmacotherapy, medication administration, and/or adverse reactions.

Following the presentation, the pharmacy resident, in coordination with their preceptor, are encouraged to send their finalized education document to the Pharmacy Education Council for cataloging and upload to the Pharmacy Department's Pulse page.

Residents are highly encouraged to use UC San Diego Health branded templates (can be found on Pulse).

Recommended One-page education

- Title
- Background
- Impact and relevance of the subject
- Footer: name, contact information, date

Timeline

Day of presentation and follow up __/__/____	☐ Have a great presentation! ☐ Add event to pharmacy activities calendar with number of attendees for purposes of tracking educational events provided by our department

Appendix M: Teaching Certificate Program Overview

Purpose:

The San Diego Pharmacy Residency Leadership (SDPRL) Program is designed to develop and cultivate the pharmacy resident's teaching and leadership skills by introducing them to contemporary health professional education topics and discussions while assisting in development of a personal teaching philosophy. Residents will attend teaching seminars, provide formal teaching experiences in clinical rotational settings, deliver one-on-one precepting and mentorship, and facilitate small group discussions and learning, to develop and refine their professional teaching and mentorship skills. Participants will receive education and guidance from experienced preceptors and leaders in the San Diego area to develop, support and encourage their life-long experience as pharmacy educators.

Over the residency year, participants will document their SDPRL learning and teaching activities in an electronic Teaching Portfolio. This Teaching Portfolio will include a Teaching Activity Log, which lists the resident's educational activities, copies of pertinent content from each teaching experience, and evaluations of the resident's teaching and facilitation skills. Participants will also develop an initial and final (end of the year) personal Teaching Philosophy which will be maintained in the Teaching Portfolio. As the participant learns and grows over the course of the program, it is expected that his/her Teaching Philosophy will develop and change.

To earn a Certificate of Completion, at the conclusion of the program, the participant will have:

- Attend all SDPRL teaching and leadership seminar sessions
    - If the pharmacy resident is unable to attend a session, they must work with the SDPRL facilitators and RPD to complete a make-up assignment and reflection
- Developed and maintained a Teaching Portfolio, which includes:
    - Statement of personal Teaching Philosophy (initial and final)
    - Teaching Activity Log
    - Examples of teaching material (handouts, presentations, etc.)
    - Completed assignments from each Teaching Module if applicable
    - Evaluations of teaching experiences if applicable
- Prepared and delivered a minimum of five (5) small group presentations, at least one of which must include physician attendees
- Facilitated one quarter of Therapeutics Conference or P4 Am Care Student Conference
- Prepared and delivered a minimum of one (1) Journal Club presentation
- Prepared a delivered a minimum of one (1) Morbidity and Mortality (M&M) presentation if applicable
- Prepared and delivered a minimum of one (1) Tech-Talk presentation if applicable
- Prepared and delivered a minimum of one (1) Nursing in-service
- Facilitated a minimum of one (1) Objective Structured Clinical Exam (OSCE) session

Schedule of Activities:

The SDRPL schedule for the year will be shared with pharmacy residents at the beginning of the training year. The schedule of activities will include dates of the required learning sessions, activity title, session leaders, and location. The schedule may change throughout the year depending on facilitator availability or other extenuating circumstances. Sessions may be in person, virtual, or asynchronous.

Active Learning:

Participants will learn and are expected to practice Active Learning techniques and apply these to the Program assignments, learning and teaching activities. This may include but is not limited to problem solving, facilitation, case presentations and discussion, class polling, quizzing, and reflections.

Teaching Activities Log:
Participants will maintain a Teaching Activity log which summarizes all learning and teaching activities and tracks the composition of the audience, venue, date, and topic.

Teaching Activity Minimum Requirements

Activity Type (Minimum # Required)	Description	Recommended Target Audience[1]	Examples[1]	Minimum Presentation Requirements[2]
Small Group Teaching (5)	Small group teaching: a process to educate or inform a group of health care professionals or health care trainees on a pharmacy related issue. At least 1 of the presentations must include physicians.	Health care professionals such as physicians, pharmacists, nurses and professional trainees; a minimum of one must include physicians	In-services Clinical forums Presentation to P&T	Minimum of 3 attendees Minimum 15 minutes presentation including Q & A period with audience Handout or Presentation
RN In-service	Educate or inform a group of nursing professionals on a pharmacy related issue.	Nurses	In-services	Minimum of 3 attendees Minimum 15 minutes presentation including Q & A period with audience Handout or Presentation
M&M (1)	Medication safety teaching should be done in an environment that is non punitive with a general goal of identifying complications and errors and developing behaviors or processes (e.g., changes in policies, bar code medication administration, quick order sets) that will prevent future problems that may affect patient care.	Health care professionals such as physicians, pharmacists, nurses and professional trainees.	Analysis of iReport incident	Minimum of 3 attendees Minimum 15 minutes presentation including Q & A period with audience Handout or Presentation
Small Group Facilitation (1 quarter Therapeutics Conference or P4 Am Care Student Conferences)	Small group facilitation involves guiding the processes and progress of a small group consisting of 5-10 individuals. In contrast to small group teaching, facilitators are responsible for maintaining the progress of activities, but usually do not lead discussions. Skills for small group facilitation include organization and advance planning, guiding discussion towards key points, encouraging participation and assisting the group with staying “on task”.	Pharmacy students; members of a committee	Leading a meeting (P&T, committee meeting, etc.) Moderating a student conference (e.g., journal club, case presentation, disease state presentation) Student case conferences	Optional: Minutes (if applicable) Agenda (if applicable) Handout (if applicable) Cases and case keys (if applicable)
Patient Case (included in Therapeutics Conference, for Acute Care program only)	Patient Case Presentation including patient vitals, chief complaint, HPI, PMH, family/social history, allergies, current and previous medications, physical exam, lab	Healthcare professionals as defined above and/or professional trainees	Case Presentation Create case for student conferences, including PPCP	Minimum 15-minute presentation including Q & A period with audience

	values, identification of medication problems such as DDIs and plan.		key, two minute patient presentation, and discussion questions	Involvement in student conferences
Large Group Formal Presentation (1)	Formal pharmacotherapy related presentation that includes a specific aspect of clinical pharmacy.	Healthcare professionals as defined above and/or professional trainees	Grand Rounds CE presentation Didactic lecture	Comprehensive handout including goals, learning objectives and self-assessment questions Minimum duration of 50 minutes including formal presentation and Q & A period
Journal Club (1)	Journal Club including brief background on disease and study, objective, study design, study population, primary and secondary endpoints, statistical analysis, strengths, weaknesses, results and conclusions	Healthcare professionals as defined above and/or professional trainees	Journal Club	Handout
Student Precepting (as assigned)	Direct student precepting using the 4 preceptor roles: direct instruction, modeling, coaching, and facilitation	Pharmacy students	Serves as rotation preceptor under guidance of primary pharmacist staff preceptor	N/A
OSCE (1)	OSCE facilitation with preceptor supervision	Pharmacy +/- medical +/- nursing students	UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS) clinical OSCE	N/A

NOTES:

[1]This is not an inclusive list.; other audiences and teaching examples may qualify; please obtain approval from your RPD

[2] Presentation requirements are subject to change at the discretion of rotation preceptor or RPD.

Appendix N: Preceptor Handbook

1. **Preceptor Selection, Appointment, and Reappointment**
   A. Pharmacists at UCSDH may self-identify their desire to become a preceptor to the RPD. The RPDs or RAC members may identify staff pharmacists who they wish to become preceptors.
   B. Potential preceptors will be appointed/reappointed by RPD/RAC once they meet criteria as defined by ASHP Academic and Professional Record (APR), which includes the following categories: eligibility, qualifications, and contributions to the pharmacy practice

2. **Preceptors' Responsibilities**
   Preceptors are expected to contribute to the success of pharmacy residents and the program by:
   A. Providing learning experiences in accordance with ASHP Pharmacy Residency Standards
   B. Actively participating in the residency program's continuous quality improvement processes
   C. Demonstrating commitment to advancing the residency program, pharmacy services, and the preceptor's own practice
   D. Maintaining APR to meet ASHP standards
   E. Updating the learning experience description by utilizing the program-specific Competency Areas, Goals and Objectives (CAGOs)
   F. Participating in the program-specific RAC if applicable
   G. Participating in at least one preceptor development activity (i.e. reviewing preceptor pearls)
   H. Providing effective and meaningful feedback
   I. Additional activities may include:
      1. Providing education (in-services, clinical forums, grand rounds, lectures, etc.)
      2. Precepting research projects, grand rounds, clinical forums, and journal clubs
      3. Participating in intra- and interdepartmental committees

3. **Precepting the Learning Experience**
   During the learning experience preceptors should:
   A. Provide the resident with clear and complete descriptions of learning experience objectives, activities, and expectations.
   B. Review resident's goals for learning experience at the start of the experience and throughout as the resident becomes more comfortable in the learning environment.
   C. Clarify the priorities of daily activities.
   D. Indicate to the resident the days/times when you will not be available and assign a contact person when you are not available.
   E. Review resident's role and assignments to the pharmacist serving as the contact person in the preceptor's absence.
   F. Establish a list of topics for the learning experience. Readings for these topics may be assigned, or the preceptor may ask the resident to select the references. If discussion of the topic is needed, this should be communicated and scheduled with the resident and the preceptor.
   G. Clarify for the resident when it is necessary to contact other pharmacists before making recommendations to physicians or other health care providers.
   H. Meet with the resident on an ongoing basis for a discussion of patients, projects, topics, and to provide performance feedback.
   I. Complete evaluations as required. (See Part 5. Evaluation and Feedback)
   J. Ensure the resident completes and presents any required presentations, journal clubs, or projects before the end of the learning experience. If a project or presentation will be continued into another learning experience, coordinate the activities with the following preceptor to ensure the assignment will not interfere with the next learning experience.
   K. Handoff the resident's progress with the next preceptor on the resident's schedule.

4. **Resident Orientation to Learning Experiences**
   A. Orientation should occur at the beginning of the learning experience, ideally on the first day, and should include the following components
      1. Learning experience description overview
         a. General Description of the practice area covered during the learning experience, including Introduction to staff and work area
         b. Role of the pharmacist in the practice area
         c. Expectations of the resident

d. List of potential topic discussions and required readings
e. Objectives that will be taught and evaluated
f. Required activities during the learning experience, including a resident's expected progression consistent with the length and schedule of the learning experience
g. Description of the evaluation process
    i. How and when preceptors will provide feedback to the resident
    ii. How and when residents will provide preceptor and learning experience feedback
h. The daily activities specific to the practice area and learning experience that will support each objective
i. Specific activities/projects related to the learning experience and associated timelines

2. Review of
    a. Resident's feedback from previous learning experiences and their relation to the present learning experience
    b. Resident's strengths and weaknesses, goals
    c. Resident's previous experience in the practice area during APPE or other learning experiences
    d. Resident's specific interest areas
    e. When necessary, the resident's customized training plan to identify specific objectives not yet achieved
3. Scheduling (i.e., hours/schedule, calendar with deadlines and meetings)
4. How the resident will be trained for self-evaluation skills and review of expectations for documented resident self-evaluation, if required for the learning experience
5. Expectations and assignments for the resident when the primary preceptor is not scheduled to staff

5. Preceptor Roles

A. Preceptors should appropriately select the appropriate preceptor role for each situation to ensure resident learning (see Table 1). The ASHP Pharmacy Residency Standards considers this a critical factor in the success of the residency program.
B. Over the course of the learning experience or day, the preceptor may need to pick and choose a different preceptor role depending on the resident's past experience or baseline knowledge.

Table 1. The Four Roles of the Preceptor in Teaching Problem Solving Skills
Select appropriate strategy, method, and technique to correspond to resident's learning needs.

Preceptor Role	Technique
Direct Instruction	Direct learners to content specific to their practice problems
	Teach how a new piece of content relates to other pieces
	Introduce new content in the context of solving a direct patient care problem
Modeling	Teach strategies to help clarify problems
	Teach the patterns that characterize different categories of direct patient care practice problems
	Explain out loud what you are thinking as you solve a problem
Coaching	Give learners opportunities to practice solving direct patient care practice problems coupled with feedback on their use of strategies
	Provide sufficient problem-solving practice to build speed
	Ask learners to explain out loud what they are thinking as they solve a problem
Facilitating	Teach learners to evaluate their own work

6. Evaluation and Feedback

A. The ASHP Pharmacy Residency Standards emphasize that "preceptors must provide on-going feedback to residents about how they are progressing and how they can continue to improve that is frequent, immediate, specific, and constructive."
B. It's important to meet the learners at their level. Table 2 provides examples of conversation openers to provide feedback to residents.

Table 2. Conversation Openers for Providing Feedback to the Learner

Example Questions
What are your thoughts about your interaction with _____? What was your rationale for suggesting _____? How do you think you did on _____? What was the most challenging experience that you had today? Can you describe one activity or patient interaction that you performed today that made you feel proud?

C. Components of feedback
1. When giving feedback to learners or residents, it should be:
   a. As specific as possible, in terms of behaviors performed
      1. Statements such as; "you did great!" fail to describe behaviors they should mimic in the future.
      2. Instead try: "Timing your interventions with the resident before rounds started resulted in a higher percentage of accepted medication changes. That's a good strategy to get things done with the medicine team."
   b. Understood by the learner (i.e., are you making "suggestions" or mandating actions; do they understand your points?)
   c. Focused on the few most important things that need to be changed
   d. Timely (scheduled on regular basis; ASAP after a problem)
   e. In an appropriate location
   f. Designed to help the learner to develop and improve
   g. Not personally demeaning when critical
2. It is important for preceptors to focus on the items that went well and those that could be improved in a constructive conversation (see Table 3)

Table 3: A Model Conversation for Constructive Feedback

Example Questions
• "Is this a convenient time for me to give you some feedback?" • "Let's talk about_____" • How do you think it went?" (Listen to self-assessment) • "You did a great job on _____" (Give specific examples of strengths) • "*And* you could do a better job on _____" (Cite weaknesses; no "But") • "Next time, I would like you to try____" (Give helpful ideas) • "Could you summarize the main ideas from our discussions?" (Check for understanding) • "Let's meet again_____. Keep working on_____" (Closure for session)

7. Preceptor Tools

A. Use these eight tasks/tips to help facilitate learning (See Table 4)

Table 4: Eight Tasks/Tips to Help Facilitate Learning

Question/Task	Tips
Discuss goals and expectations with the learner.	Have an orientation or debrief
Create a supportive learning environment.	Show enthusiasm for the subject matter and for teaching.
Motivate the learner.	Select tasks where learners can succeed at new skills.

Help the learner identify what is important in the situation.	Identify important details to focus the learner's attention.
Use questions to stimulate memory and previous learning.	Consider using Socratic dialogue
Supervise active practice and hands-on experience.	During interaction with the multi-disciplinary team, patient, or other, supervise and provide feedback to the resident
Generalize to the broader learning process.	Use "what if" problems to extend beyond cases seen.
Provide ongoing feedback and promote self-assessment.	Give prompt and constructive feedback to enhance growth.

B. Short on Time?
It's easy to feel like precepting is time-consuming. When you are short on time, try the "One-Minute Preceptor" Model in Table 5.

Table 5. The "One-Minute Preceptor" Model

Aspects of the model	How to apply the model
Get a commitment.	Ask: What is going on?
Probe for evidence	Ask: Why?
Teach one general point.	Instruct: Describe rationale for task or question.
Correct errors and make recommendations.	Coach: What could be done differently or modified
Reinforce positive behaviors.	Model:
Conclude with a plan.	Facilitate: Tell me how it goes when you try again.

C. Stimulate resident-led learning using Socratic dialogue

Table 6: Using Socratic dialogue when precepting

5 Concepts to consider when implementing Socratic dialogue in your precepting practice
1. Allow the resident or learner to gain or maintain comfort when being challenged in discussion – productive discomfort 2. Allow for 'guessing' in a safe space with the Preceptor; away from direct patient care 3. Pull back the curtain on what we are learning, why we are learning, and how this honest humility between the Preceptor and Resident develops their future practice 4. As Preceptors, we can't learn the material for our learners, they must struggle. The 'Righting' reflex by giving them the right answer. Telling information doesn't mean they've learned it. 5. Demystify what critical thinking is as a preceptor; have humility and allow learners to see you learn along side of them. 'Fail forward' with the resident.

Ref: Lindsay Davis, Pharm.D., Educator Essentials: Five key concepts to consider when implementing Socratic dialogue in your precepting practice.

8. Evaluation and Feedback

A. Preceptor Evaluation of the Resident

1. Provide regular, day-to-day, criteria-based feedback to give the resident information on which to shape his or her task performance. Consider "feed forward" evaluations where comments on performance are given during and immediately following a task instead of at the end of the learning experience or task (i.e., feedback).
2. Do end-of-learning experience summative evaluations by the end of learning experience and quarterly for longitudinal rotations. All evaluations for a learning experience are due within seven (7) days after the last day of the rotation.
3. A narrative commentary for each educational goal must be provided on the summative evaluation. The commentary should include an assessment of the resident's performance, and recommendations for improvement. Please provide specific examples of how the resident accomplished specific activities.
4. Use the Activities and Criteria Links for each objective in PharmAcademic to assist and guide your comments for summative evaluations.
5. Monitor and facilitate growth in resident self-assessment skills (Resident is required to complete a self-assessment activity as assigned by each learning experience).
6. Preceptor must discuss all written evaluations with the resident. Ideally, this discussion should occur prior to submitting into PharmAcademic near the end of the learning experience.

7. The resident will complete the learning experience evaluation and preceptor evaluation. The preceptor should expect comments from the resident on at least 1-2 things that can be done to improve the learning experience and/or precepting. Failure for the resident to include these types of comments on the evaluations may result in the evaluation being sent back to the resident for editing.
8. The evaluating preceptor will communicate with the oncoming preceptor any deficiencies or areas of weaknesses as well as areas that the resident performs well.
9. Preceptor, resident, and RPD must sign all evaluations.

B. Resident Evaluation of the Preceptor
1. Throughout the learning experience, the preceptor should seek on-going feedback from the resident about the learning experience and preceptor's approach to the resident's learning.
2. Preceptors should make time for reciprocal feedback from residents on a regular and recurring basis.

UC San Diego Health Preceptor Development Plan

Residency Program*:	
Residency Program Director (RPD)*:	
Preceptor Name:	
PharmAcademic APR initial received date:	
Start date of Development Plan:	
Anticipated completion date:	

**The specified residency program's RAC and RPD will have oversight. If the preceptor precepts both PGY1 and PGY2 programs, the PGY2 RAC and RPD will provide oversight*

Upon review of the preceptor's APR, document any area(s) where eligibility/qualifications were **not** met based on ASHP's Standard 4.5-4.6. Develop plan and provide opportunities to meet qualifications within two years. After completion, final approval must be obtained from RAC and RPD.

Standard 4.5: Pharmacist Preceptors' Eligibility	☐ **Standard met. No further actions** ☐ **Did not meet Standard. Development plan/anticipated eligible date:**
Standard 4.6: Preceptors' Qualifications/ Contribution to Pharmacy Practice	☐ **Standard met. No further actions** ☐ **Did not meet Standard. Development plan/anticipated qualified date:**

Preceptor has successfully completed all required activities

Preceptor Signature:	**Date:**

Approved by RPD after review of updated APR

RPD Signature:	**Date:**

Approval by RAC

Date of discussion/approval:

UC San Diego Health Preceptor Reappointment Development Plan

Residency Program*:	
Residency Program Director (RPD)*:	
Preceptor's name:	
PharmAcademic APR reviewed date:	
Start date of Development Plan:	
Anticipated completion date:	

**The specified residency program's RAC and RPD will have oversight for PIT. If the preceptor precepts both PGY1 and PGY2 programs, the PGY2 RAC and RPD will provide oversight.*

Upon review of preceptor's APR, document any area(s) where eligibility/qualifications were **not** met based on ASHP's Standard 4.5-4.7. Develop plan and provide opportunities to meet qualifications within two years. After completion, final approval must be obtained from RAC and RPD.

Standard 4.5: Pharmacist Preceptors' Eligibility	☐ **Standard met. No further actions** ☐ **Did not meet Standard. Development plan/anticipated eligible date:**
Standard 4.6: Preceptors' Qualifications: Preceptors must demonstrate the ability to precept residents' learning experiences	☐ **Standard met. No further actions** ☐ **Did not meet Standard. Development plan/anticipated qualified date:**

Approved by RPD after review of updated APR

Signature:	**Date:**

Approval by RAC

Date of discussion/approval:

9. Preceptor Development Plan for the Residency Programs

A. General Information**:**

1. Preceptors are encouraged to attend program specific RAC and share precepting challenges and success
2. Preceptors are encouraged to read and apply monthly Preceptor Pearls to their practice. Previous Preceptor Pearls can be found on https://ishare.ucsd.edu/sites/rx/preceptors
3. Preceptors are encouraged to seek recognition in the area of pharmacy practice for which they serve as a preceptor (e.g. board certification, Fellow status, credentialing or privileging granted by UCSDH)
4. Preceptors are encouraged to seek scholarly activities such as (resident/student) research projects, publication, giving lectures to multidisciplinary groups, and more
5. Preceptors are encouraged to actively participate in local, state or national pharmacy (or discipline dependent) organizations
6. Helpful sites for Preceptor Development include:
    1. Pharmacist Letter: www.pharmacistletter.com
    2. ASHP Preceptor Skills Center: https://www.ashp.org/Pharmacy-Practice/Resource-Centers/Preceptor-Toolkit?loginreturnUrl=SSOCheckOnly
    3. The Habits of Preceptors Rubric

B. On an annual basis, RPDs should review preceptor feedback from residents, discuss that feedback with the preceptor and develop a plan for ongoing individual preceptor development. The Residency Executive Committee (REC) will coordinate the appropriate RPD to review the preceptor development plan for those preceptors who work with multiple resident programs.

C. Ongoing preceptor development

1. On a monthly basis, the REC will disseminate 'Preceptor Pearls' to UCSDH Pharmacy Preceptors. Preceptors will be expected to complete a one question survey verifying acknowledgement of the Preceptor Pearls. The REC will review acknowledgement and receipt of the Preceptor Pearls monthly and follow up with preceptors who have not completed the pearl.
2. Annually, two lectures Pharmacy Department lectures will be dedicated to precepting topics. The topics will be centered on 'wellness/burnout' and one other pertinent topic identified annually by UCSDH Pharmacy Preceptors survey.
3. Annually, UCSDH preceptors will participate in the UC Collaborative Preceptor Development series. Four-five presentations, activities, workshops and/or discussions are provided by the University of California System Pharmacist preceptors throughout the residency year and will address topics determined by an annual needs assessment (Qualtrics survey to all UC preceptors). CE credit will be available to those who attend and complete an evaluation. Residents will attend.

<u>Appendix O:</u> Pharmacy Residency Programs Major Project/Research Manual 2026-2027

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Major Project Requirements for Residency Programs

Each pharmacy resident is expected to design and complete one major project under the guidance of a project preceptor during the resident year. Per residency program requirements, the resident project will be completed in addition to the medication-use evaluation. By the completion of the resident project, the resident should be able to achieve the ASHP learning objectives 2.1.1-2.1.6. Projects are generally presented at the UC Collaborative Pharmacy Conference, or at a program-specific specialty meeting or conference of the RPD's choice. The residency project is intended to help refine the resident's skills in the areas of problem-solving, task prioritization, organization, research, study design, and data collection. The Research Council aims to provide guidance and training to residents regarding proper methodology for scientific research projects, whether their project falls under the definition of "research" or not. The Research Council will provide guidance on all residency projects.

The following components are required for fulfillment of the research component of the residency program:

- Achievement of established objectives and associated learning activities set forth by the American Society of Health-SystemPharmacists (ASHP) to the satisfaction of the primary research preceptor and RPD
- Abstract submission at a national, regional, and/or local conference, as decided by RPD (corresponding to individual program graduation requirements)
- Poster construction and/or presentation at a national, regional, and/or local conference, as decided by the RPD (corresponding to individual program graduation requirements)
- Platform presentation at a national, regional, and/or local conference, as decided by the RPD (corresponding to individual program graduation requirements)
- Completion of a manuscript suitable for publication, submitted to the preceptor(s), Research Council Chair and RPD
- Completion of the Research Primer Series

ASHP Goals and Objectives and Associated Learning Activities

Each quarter, through completion of the residency project, the resident will be evaluated on their performance for the program-specific activities corresponding to the learning objectives. Objectives and associated learning activities for PGY1 and PGY2 residents may differ for each program.

Expectations and Responsibilities

Residents

All pharmacy residents are expected to:

- Read the Residency Research Manual in its entirety and refer to its content throughout the year as questions related to research or major projects arise
- Schedule and meet with preceptors on a regular basis and review quarterly evaluations via PharmAcademic
- Complete required Collaborative Institutional Training Initiative (CITI) training
    - Under "Select Your Organization Affiliation", type "University of California, San Diego", then follow prompts to complete "Curriculum Group: Biomedical Research - Basic/Refresher (Stage 1 - Basic Course)"
- Compile a project/research plan for their project
- Complete IRB submission (Kuali) or ACQUIRE for primary preceptor review and final submission, as applicable
- Review "How to Get Pharmacy Data" presentation to determine best method of obtaining data
    - If applicable: complete a data request questionnaire and upload via Service Now request
    - Epic SlicerDicer training will be incorporated into the Research Primer series (see below)
- Develop a data collection tool that includes a detailed data dictionary
- Collect and analyze data for their project/research consistent with their project/research plan
- Meet with biostatistician at least once in early project development phase with second meeting as needed
- If access to statistical software (STATA/R/SPSS/etc) is needed, fill out this form for either remote or in-person (Geisel library-GIS lab) access
- Submit related abstracts and register for all conferences attended (must be reviewed by preceptor and all research group members prior to submission)
- Develop and present posters and/or platform presentation(s) for all required national, regional and/or local conferences
- Complete a manuscript suitable for publication using AJHP formatting/instructions OR instructions specific to the journal to which you intend to submit, and make appropriate revisions based on feedback
- Adhere to all project timelines and coordinate among all project stakeholders
- Escalate logistical issues regarding the major project to the research preceptor(s), Research Council and/or RPD, when appropriate
- Complete year-end research form via Qualtrics
- At the end of the residency year, upload all final documents to PharmAcademic and research folder with appropriate title
- Provide feedback to the Research Council for process improvement of the research experience

Preceptors

All preceptors are expected to:

- Submit a research/project idea utilizing the submission form and present the idea to residents duringresearch orientation
- Complete quarterly evaluations on PharmAcademic based on the stated ASHP objectives andlearning activities for the research experience
- Complete quarterly progress report in PharmAcademic
- Provide guidance and technical expertise to the resident in designing and executing the project
- Complete required Collaborative Institutional Training Initiative (CITI) training prior to IRB submission
    - Under "Select Your Organization Affiliation", type "University of California, San Diego", then follow prompts

to complete “Curriculum Group: Biomedical Research - Basic/Refresher (Stage 1 - Basic Course)”

- Oversee development of the project/research plan and submission of IRB or ACQUIRE applications
- Assist and/or oversee the resident in data collection, data analysis, and project completion (abstract, poster, manuscript, and other presentations), as needed
- Meet with the resident on a regular basis, recommended no less than monthly during project development, to discuss progress of the project
- Be available during consultation with Study Design and Biostatics Consult Services
- Prior to submission to the Research Council or any meeting, review and evaluate all required protocols, presentations, abstracts, posters, and manuscripts
- Escalate logistical issues regarding the research project or the resident’s performance to the Research Council and/or RPD, when appropriate
- Provide feedback to the Research Council for process improvement of the research experience

Research Council Members

All Research Council members are expected to:

- Attend and participate in at least 50% of Research Council meetings that are required for their level of participation (barring special circumstances)
- Participate in the research idea submission evaluation and approval process
- Participate in research check-ins (fall and spring), review abstracts, and review manuscript within the designated timeframe as delineated for their level of participation
- Participate in coordination and evaluation of the Research Primer Course
- Provide feedback to the Research Council for process improvement of the research experience
- Throughline Team: participates in Design, Presentation, and Manuscript Team activities
- Design/Methodology Team:
    - Attends monthly Research Council meetings from April through December schedule permitting (invited but not required to attend other meetings)
    - Reviews project list to be offered to incoming residents
    - After project selections by residents, reviews PICO/FINER (research question) worksheet and drafts of project plan and data dictionary
- Presentation/Manuscript Team:
    - Attends monthly Research Council meetings from January through May schedule permitting (invited but not required to attend other meetings)
    - Reviews draft GME PSQI abstract and/or poster
    - Reviews draft presentation for UC Collaborative Conference
    - Reviews manuscript

Research Council Chair

Although not directly accountable for individual projects, the Research Council Chair, with the assistance of the Research Council, is responsible for oversight of all residency research-related activities,including, but not limited to:

- Organize Research Council meetings, provide a meeting agenda, compile meeting minutes, and take attendance
- Organize resident research-related presentations (e.g., research protocol, platform presentation practice)
- Provide updates regarding resident progress and/or changes in the resident research process to the

Residency Advisory Council (RAC) and the Department of Pharmacy, as necessary

- Coordinate research-related learning activities and/or workshops
- Provide any additional guidance on research project activities (e.g. presentations, conference abstract guidelines) or reminders for deadlines to the residents as necessary
- Attend or assign Research Council member(s) and/or preceptors to attend national, regional, and/orlocal conferences (e.g., University of California Collaborative)
- Implement suggested process improvements based on Research Council, preceptor, and resident feedback

Research Primer Series

The Research Council Primer series is required for all pharmacy residents who have not previously completed the course. PGY2 pharmacy residents who have previously completed the course are still required to complete the competencies within 24 hours of scheduled primer. Attendance at Research Primers may be optional for PGY2s who completed the Research Primer course as a PGY1, as noted in the Resident Research Project Timeline. Certain primer meetings will be associated with a competency (see timeline). Passing score on competencies is considered 80%. Competencies/feedback link can be found on the Research Council Teams.

Overview of the Research Process

Flipped Project

Some projects offered to incoming pharmacy residents will be "flipped", meaning that the Institutional Review Board (IRB) (or similar) approval is already obtained and the methodology is already set. In such cases, the timeline shown below will need to follow the flipped model timeline, and the resident will need to help ideate, create methodology, and submit for IRB approval a new project at the end of their residency year.

Submission of Research Ideas and Selection of Research Projects

Research ideas may be submitted to the Research Council by any member of the Department of Pharmacy at any time throughout the year. Whoever submits the research idea will have the opportunity to become the primary preceptor for the research project or suggest another primary preceptor. The Research Council will review all submissions for appropriateness and provide feedback or suggestions related to how to strengthen the project. Project ideas will be distributed to the residents during research orientation. PGY1 residents will be responsible for selecting their research project by July 30th of the residency year. PGY2 residents should work with their RPD to select research projects prior to, or upon starting the program. Any deviations in these dates will be at the discretion of the corresponding RPD. Refer to the residency research project timeline for an overview of major due dates and responsibilities.

Development of a Project/Research Plan

In coordination with their research preceptor(s) and team, the pharmacy resident will develop a research plan. The pharmacy resident should work with their preceptor(s) to complete the Pharmacy Resident Project/Research Plan for submission to the Research Council and RPD. The Project/Research Plan flow is very similar to a manuscript and the pharmacy resident is encouraged to use this plan when formulating their manuscript throughout the year. The final project/research plan will be presented to the Research Council during the fall for feedback. The Residency Project Plan Evaluation Tool will be used to review the plan and provide feedback to the pharmacy resident and preceptor(s).

Pharmacy Resident Project/Research Plan Components

- A summary of the overall project
    - All members of the research team and their roles
        - The roles of the research team will correlate with the author order if the team decides to seek publication. It is highly recommended roles and author order are discussed at the beginning of the project.
    - The research question
        - What is the specific aim(s) which the objective(s) are meant to accomplish? This should align with your hypothesis.
        - Consider using PICO/FINER worksheet to develop question
    - The project/research objective(s)
        - Use SMART criteria to define the project objective. SMART criteria were developed by George Duran in 1981 as a way to define management goals and objectives. It is a useful tool to guide project development.
            - **S**pecific: What will be accomplished? What actions will you take? Generally 3 aims
            - **M**easurable: How will we know when it's done?
            - **A**chievable: Is the project/research doable? Do you have the necessary skills and resources?
            - **R**elevant: How does the project/research align with broader goals? Why is the result important?
            - **T**ime-bound: What is the time frame for accomplishing the project/research?
- Background
    - Background/literature review
        - Utilize the results of your PICO/FINER worksheet to describe why is this research/project important and how does it fit into the broader context of what is already known?

    - Purpose
        - Summarize your objectives into one sentence.
- Methods
    - Study design
    - Inclusion criteria
    - Exclusion criteria: please note, you should not list the opposite of the inclusion criteria here. For example, if you are including patients aged 18 year and older, you do not need to specify that you are excluding patients under the age of 18
    - Patient identification
    - Data management
    - Data collection
    - Study endpoints including your primary and secondary (where applicable) endpoints which should answer your research question
    - Planned statistical analysis. It is highly recommended that the pharmacy resident and preceptors describe the type of variable used for the primary endpoint (e.g., normally or non-normally distributed; nominal, continuous) and chose the appropriate statistical test using the decision tree in the selected representative statistical tests
- Discussion
    - Known limitations before starting the project
    - Consider potential biases and how biases were attempted to be mitigated, if applicable
- References
    - All references should be formatted for the intended journal for submission. The default journal for UCSDH pharmacy residents is AJHP. Any other journal may be selected by research preceptors/groups.
    - The UCSD Library has excellent resources to assist pharmacy residents and preceptors in appropriate citation. Please visit their website for more details. Please note, most journals will require American Medical Association (AMA) citation style. This guide is available on the UCSD Library site, but must be accessed via a UCSD networked computer.

IRB or ACQUIRE Submission

Submission of the final protocol to the Human Resources Protection Program (HRPP), aka IRB, is project dependent. If the resident and preceptor are unsure if protocol submission is required they are first encouraged to reach out to the HRPP office (https://irb.ucsd.edu) and then to the Research Council chair for further guidance. Please note**, the Pharmacy Residency Project/Research Plan and IRB application are not the same**. The aim of an IRB application is to ensure ethical research. The aim of the Pharmacy Residency Project/Research Plan is to plan out the project details.

Alternatively, projects focused on quality should route their submissions through the UCSDH ACQUIRE Committee. The ACQUIRE (Aligning and Coordinating Quality Improvement, Research and Evaluation) Committee evaluates QI/PI project proposals at UCSDH for specific needs, including

- Excusal from Institutional Review Board (IRB)/Human Research Protections Program (HRPP) oversight when not deemed to be human subjects research (HSR)
- Granting of Maintenance of Certification (MOC) Part IV credit for eligible board-certified physicians (and Performance Improvement CME for physician assistants).

Final IRB or ACQUIRE forms must be reviewed and approved by preceptors prior to submission to the online intake portal.

Obtaining Data and Data Collection

The resident will complete a data request questionnaire and upload via Service Now. Data may also be obtained via other means, at the discretion of the project preceptor and/or RPD. Options include the Vizient, Epic Slicer/Dicer, and other databases the research team has access to. Review the "How to Get Pharmacy Data" presentation to determine the best method of obtaining data. A Research Primer course on Data Acquisition is included in the schedule. Microsoft Teams and iShare are the two suitable locations on which to store data.

The resident will be responsible for data collection utilizing a data collection tool (e.g., REDCap or Microsoft Excel). The resident and preceptor should develop a data dictionary **at the beginning of the project**. Microsoft Excel spreadsheets and electronic data collection sheets must be encrypted with a password if they contain protected health information. Coding using numbers (e.g. 0, 1) versus qualitative data (e.g. yes, no) will help with data analysis. Paper data collection sheets should be stored in a locked cabinet with access limited to members of the research team. REDCap is a password- protected software that also allows one to import or export data from/to Microsoft Excel.

At UC San Diego Health, the Altman Clinical and Translational Research Institute (ACTRI) houses a wide variety of research resources, including clinical and translational research training, biostatistics services, and access to RedCap. Pharmacy residents are encouraged to use ACTRI resources whenever possible. The website is available at https://medschool.ucsd.edu/research/ACTRI/pages/default.aspx

Statistical Support

Each year the resident will be allotted up to 2 hours of time with a Study Design and Biostatics Consult Services. The resident will book a mandatory first meeting at the beginning of the residency year to go over project methodology and statistical design with a consultant. A second hour at the end of the year to plan for statistical analysis and data visualization should be strongly considered. Residents and preceptors should be ready with questions about their pre-determined statistical plan. Preceptors will be required to attend meetings with the statistical consultants.

A statistical test decision tree will assist research groups in determining which tests may be appropriate. The UCSD Statistical Support Service group availability and timeliness may vary throughout the year depending on workload. All preceptors and residents should have a contingency plan in place to manually complete all required data collection and statistical analysis prior to established deadlines without the aid of the UCSD Statistical Support Service.

UCSD has a variety of statistical software available for research use. Software such as SAS, Minitab, SPSS, and STATA can all be found on Blink. For access to statistical software (STATA/R/SPSS/etc) via remote log-in or in-person access in the Geisel Library GIS lab, fill out this form.

Presentation of Research Results at National, Regional, and Local Conferences

PGY1 residents will provide a poster presentation of study methods and results (if present at the time of deadline) of their project at the Graduate Medical Education (GME) Patient Safety, Quality and Innovation (PSQI) Symposium. Links to selected meetings can be found at on the Abstracts, Posters, Presentations page. PGY2 residents should consult with their RPD for GME PSQI requirements. Residents will also provide a platform presentation ofpreliminary or final results of their project at the UC Pharmacy Collaborative, or other conference at RPD's discretion. The Research Council will schedule a Spring Research Check-In and evaluate the final presentation at UC Collaborative Pharmacy Conference (or other, at PGY2 RPDs discretion) utilizing a standard evaluation tool.

Manuscripts and Publication

Residents will be responsible for writing a manuscript suitable for publication describing the design and resultsof their project. Manuscript requirements should be discussed with the preceptor for potential publication opportunities. If a specific journal is not selected by the resident or preceptor, the manuscript should be formatted as an original research article according to the Author Instructions for the AJHP. All final manuscripts for the purposes of residency completion will need to have journal formatting and no tracked changes as agreed upon by the research team**.** Please refer to the manuscript evaluation tool for more details on how the manuscript will be reviewed by the Research Council.

Submission of Final Documents to PharmAcademic and Research Council Folder

Residents, in conjunction with their preceptor(s), will be responsible for uploading final versions of project/research-related documents to PharmAcademic and their Research Council folder. Documents should be uploaded and submitted in PDF format. Documents required to be uploaded to PharmAcademic and their Research Council folder at the time of the due date for the corresponding quarterly evaluation are outlined in Table 3.

Required Documents for Upload to PharmAcademic and Research Council Folder

Due Date	Document (PDF Format)	Document Title Example
First Quarter	CITI Training completion certificate	LAST_FIRST_CITI_CERT
	PICO/FINER worksheet	LAST_FIRST_PICO
	Project plan and data dictionary (submit as a single document)	LAST_FIRST_PROJECTPLAN
Second Quarter	No documents due	
Third Quarter	UC Collab abstract	LAST_FIRST_UCC_ABSTRACT
	UC Collab presentation slides	LAST_FIRST_UCC_SLIDES
	GME PSQI abstract	LAST_FIRST_GME_ABSTRACT
	GME PSQI poster	LAST_FIRST_GME_POSTER
Final Quarter	Manuscript	LAST_FIRST_MANUSCRIPT TRACKED LAST_FIRST_MANUSCRIPT CLEAN
	Data Dictionary	LAST_FIRST_DATADICTIONARY

Residency Research Project Timeline **see Research Primer Timeline for Primers*

Month	Longitudinal Research Project Deadlines
Jul	Research Orientation, projects presented (Date: 7/8/26) Resident project ranking deadline (Date: 7/17/26) Research project match (Date: 7/21/26) Research Primers 1, 2, and 3 (see Research Primer Timeline below) +/- 4 Begin literature review, PICO/FINER worksheet, protocol draft Complete CITI training (7/31/26)
Aug	PGY2 Research orientation (Date: TBD) Draft project/research plan (Research Primer #4) Submit Study Design and Biostatics Consult Services request (mandatory unless excepted; 8/31/26) Review data analyst consultation request with Research Council Chair and project preceptors residents.
Sep	Schedule meeting with Study Design and Biostatics Consult Services to review statistical plan and plan statistical analysis prior to Fall Research Check-in Submit protocol for IRB/ACQUIRE review Upload and submit first quarter required documents

Oct	Finalize data collection tool
	Submit Data Request or pull Slicer/Dicer data
	
	Fall Research Check-in
	• **Date: TBD**
	• Resident will be required to submit the following materials to the Research Council
	  ○ Project/Research Plan
	  ○ Data Collection Tool with Data Dictionary
	  ○ Mapping tool
	Initial draft presentation (background, methods, empty results)

Nov	Begin drafting background/methods of manuscript (Research Primer #8) Data Collection (if data available)
Dec	Data collection (target 20+% complete) Upload and submit second quarter required documents
Jan	Continue with data collection (target 50+% complete)
Feb	Continue with data collection (target 80+% complete)
Mar	Begin drafting abstract for UC Pharmacy Collaborative Conference and GME PSQI Symposium Abstract to be reviewed by research group and one member of Research Council prior to submission **Spring research check-in**. Required materials (Date: TBD) • Updated draft presentation with background, methods, results, draft discussion) Finish data collection if not already finished Data analysis
Apr	Continue working on manuscript Begin drafting results/discussion of manuscript Begin drafting platform presentations for UC Pharmacy Collaborative Conference Draft, finalize, and submit GME PSQI Poster (Date: TBD) Upload and submit third quarter required documents

May	Submit final slides for UC Pharmacy Collaborative Conference (Date: TBD) Submit manuscript to research preceptors for review (Date: 5/21/27 for PGY1) • Work with research preceptors to update and finalize manuscript in preparation for Research Council submission Submit updated manuscript to Research Council (Date: 5/28/27 for PGY1) UC Pharmacy Collaborative Conference (presentation) (Date: 5/12/27-5/14/27) GME PSQI Symposium (poster) (Date: TBD)
Jun	Submit manuscript response to reviewers to Research Council, if needed (6/11/27 for PGY1) Submit final IRB report and close out study (if applicable) Upload and submit final required documents Submit manuscript to RPD (Date: 6/18/27 for PGY1) • Upload to Teams website

Research Primer Timeline

	Research Primer Schedule

Primer 1	**Biostatistics in Research**
	• **Date: Resident should review all components of lecture series prior to their first meeting with the UCSD Study Design and Biostatics Consult Services.**
	• Faculty: UCSD Trauma and Burn Service recorded lectures
	• Interactive session: Pre-reading required (found on Teams)
	  ○ Reading:
	  ▪ Overview of biostatistics used in clinical research
	  ▪ Preparing for the first meeting with a statistician
	• Meeting is required for all residents

Primer 2	**General overview, developing a research plan (go over our specific research plan), building upon existing evidence, developing research questions**
	• **Date: 7/22/26, 10am-11am, ECOB 2-007**
	• Faculty: Dr. Craig Stevens, Dr. Poppy Wang
	• Interactive session: Pre-reading required (found on Teams)
	  ○ Reading:
	  ▪ Developing and executing an effective research plan (competency)
	  ▪ Building upon existing evidence to shape future research endeavors (competency)
	  ▪ Developing great research questions (competency)
	Resident Should be ready to discuss: critique of pre-reading materials

Primer 3	**Overview of clinical research design**
	• **Date: 7/23/26, 12-2pm, JMC 7-775**
	• Faculty: Dr. Craig Stevens, Dr. Poppy Wang
	• Interactive session: Pre-reading required (found on Teams)
	  ○ Reading: Overview of clinical research design (competency)
	  ○ Resident should be ready to discuss: research objectives, primary outcomes and research question
	• Meeting is optional for PGY2s who completed as PGY1. Competency is required for all residents.

Primer 4	**Intervention design, implementation and evaluation; validity and reliability measurements; bias; focus on methods of manuscript**
	• **Date: Pre-recorded session; watch prior to designing study**
	• Faculty: Dr. Lucas Hill
	• Pre-reading (found on Teams)
	  ○ Reading:
	  ▪ Validity and reliability measurement instruments used in research (competency)
	  ▪ Intervention design, implementation and evaluation (competency)
	  ▪ Bias: considerations for research practice (competency)Working with an institutional review board (competency)
	• Meeting is optional for PGY2s who completed as PGY1. Competency is required for all residents.

Primer 5	**How to submit an effective IRB application**
	• **Date: Pre-recorded session; watch 2 weeks prior to preparing IRB submission**
	• Faculty: Dr. Janine Martino
	• Pre-reading (found on Teams)
	  ○ Reading: Working with an institutional review board (competency)
	  ○ Resident should be ready to discuss: Q/A with IRB staff. Residents should have IRB draft with them and be ready with specific questions
	• Meeting is optional for PGY2s who completed as PGY1. Competency is required for all residents.

Primer 6	**Data Acquisition and Slicer/Dicer Training at UC San Diego Health** • **Date: Pre-recorded session; watch 2 weeks prior to preparing submitting data request** • Faculty: Dr. Craig Stevens, Dr. Nina Haste, Dr. Brian Jung Hoon Park • Meeting is optional for PGY2s who completed as PGY1. Competency is required for all residents.

Primer 7	**Excel; building a data dictionary, collecting data efficiently; basic Excel statistics** • **Date: TBD; IN PERSON** • Faculty: Dr. Wan-Ting Huang • Interactive session: ○ Each resident submits specific questions following pre-recorded questions and go over together as group • Prior to meeting: pre-work is required. Will be sent via email from Dr. Huang • Meeting is required for all residents
Primer 8	**Writing manuscripts, citing work appropriately, plagiarism and how to effectively present data (table/figures construction)** • **Date: Pre-recorded session; watch prior to starting to write manuscript** • Faculty: Dr. Craig Stevens • Meeting is optional for PGY2s who completed as PGY1. Competency is required for all residents.
Primer 9	**Abstract and Poster Construction** • **Date: Pre-recorded session; watch prior to starting to write manuscript** • Faculty: Dr. Victor Chen • Meeting is optional for PGY2s who completed as PGY1. Competency is required for all residents.

Major Residency Project/Research Plan Template

Title:	
Resident: **Project Advisor:** **Research Council Group:**	
Research Question	Specific aim(s) is (are) the objective(s) of your research – what you want to accomplish. Specific aim(s) should be driven by your hypothesis.
Objectives	1. 2. 3.
Background	
Background	What work exists that has led up to your research question? Has anything similar been done before?
Purpose	Summarize your objectives into 1 sentence. Most sentences start with “To characterize”, “To evaluate”, etc.
Methods	
Study Design	What type of study are you designing? Cohort, case-controlled, case series? How is the study designed to answer your hypothesis and specific aim(s)?
Inclusion Criteria	
Exclusion Criteria	
Patient Identification	• Study time frame/period of time patients are to be collected • How will they be identified? ICD-10 codes via electronic medical record, a registry, etc.? • How many patients will be targeted/anticipated?

Study Endpoints	Primary Endpoint: Secondary Endpoints: At what point will you measure outcomes? Any subgroup analyses?
Statistical Analysis	
Limitations	
References	

PICO/FINER Worksheet

Initial Research Question:

Further define your initial research question using the PICO components by answering the questions below. (Your defined research question should define the population you are studying, the intervention or exposure, the control or comparison group, and the primary outcome you will measure)

P	**What population will your research examine?**
I	**What intervention or exposure will be examined?**
C	**What will be compared? What is your control or comparison group?**
O	**What is the primary outcome you are measuring?**

Defined Research Question (based on PICO):

Conduct a literature search. Analyze your defined research question using the FINER Criteria and create a refined research question. (A good research question should be feasible, interesting, novel, ethical, and relevant)

F	**Is this question feasible for me to answer? Consider the resources available to you for the project. These include data, time, personnel, and possibly funds depending on your project.**
I	**Is this question interesting? This should be considered from your perspective as an investigator AND the scientific community where you will publish your results.**
N	**Is this question novel? After reviewing the literature, consider what the results of your project will add to the understanding of this topic.**
E	**Is the question ethical? Consider IRB constructs for autonomy, beneficence, justice, confidentiality, and privacy as applied to your project.**
R	**Is the question relevant? After reviewing the literature, consider whether your research will be eligible for publication based on generalizability of the results.**

Final Research Question (Refined based on literature and FINER considerations):

SMART Criteria Worksheet

Define your primary project/research objective(s):

Utilize SMART criteria to define your initial project/research objective(s) idea. The key aspect of using SMART criteria is defining specific and measurable components you will use to meet your purpose. They are either achieved or not.

Example:
The purpose of this project/research is to: measure the number of patients with liver disease on warfarin who achieve an INR<1.4 when prothrombin complex concentrate is used to reverse anticoagulation.

SMART Objective Examples:

- Good: Design a single-center study assessing the ability of prothrombin complex concentrate to achieve of INR<1.4 in patients who have liver disease compared to those without liver disease.
- Not good: Assess the efficacy of prothrombin complex concentrate in adequate reversal of INR in patients with impaired liver function

S	**Is this objective specific?**
M	**Is this objective measurable? Is the objective measurable or are you gathering subjective information? If the information is subjective, it will be important to define how subjective information will be *measured* to report your results.**
A	**Is this objective attainable/actionable? How hard will it be to do the project or is the project realistic and achievable? If the objective relies on chart review you may need to limit the number of patients collected.**
R	**Is the objective results-focused? This about why the objective is important; would you care about the results if you were not involved in the project?**
T	**Is the objective time-bound. (i.e. can the project be completed in the time-frame of a residency year)**

Final Project/Research Objective(s) (Refined based on SMART criteria). If there are primary and secondary objectives, this process should be done for each:

Mapping Purpose, Objectives, Methods, Results

Once the research question, purpose and objectives have been defined, the resident should map each objective to the methods and expected results. The step is optional, but highly recommended and should be done for each objective (i.e. primary and secondary objectives). The mapping should not be included in the final project/research plan, but should be discussed with the project/research group or preceptor(s).

Mapping Tool Example: Map purpose, objective, methods, results

Purpose	Assess the efficacy of prothrombin complex concentrate reversing anticoagulation in patients with and without liver disease?
Objective	Design a single-center study assessing the ability of prothrombin complex concentrate to achieve of INR<1.4 in patients who have liver disease compared to those without liver disease.
Methods	1. Create standard definitions for liver disease and account for hypofibriginonemia 2. Identify patients who have an INR measured within 6 hours (+/- 2 hours) before PCC administration 3. Identify patients who have an INR measured within 6 hours (+/- 2 hours) after PCC administration 4. Collect concomitant FFP administration 5. Collect INR 24 hours (+/- 4 hours) post PCC administration
Proposed Results	N patients with liver disease (n have INR<1.4; n have INR>/= 1.4) N patients without liver disease (n have INR<1.4; n have INR>/= 1.4)

Background/Literature Review

It is highly recommended to create a literature review table to compile information from previous studies related to your project/research. Identifying study design characteristics of previous studies, such as inclusion/exclusion criteria, variables, outcomes, and limitations, will help you understand what has been studied previously and identify areas for future research. It is recommended to format your references in AMA style part of this process. The PICO/FINER worksheet will help you further define and modify your research question in conjunction with your literature review to create a feasible and relevant study.

Medical Library

The UC San Diego Medicine: Online Clinical Library is available to all UCSDH Pharmacy residents. Frequently used databases such as PubMed and Embase are available on the Clinical Library's webpage. Additionally, the Clinical Library specifically lists a Pharmacy Librarian who can be contacted for any information the resident is unable to find on their own.

Additionally, the library has style guides for article and book citations. Most pharmacy journals utilize American Medical Association (AMA) style for referencing. The resident will need to access the AMA Style Guide from a UCSDH networked computer.

Each resident is encourage to use a citation manager such as EndNote. Useful resources can be found at the UC San Diego Library website: 'How to Cite – Tools, Tricks & Tips for Managing Citations: Home

Methods

Study design/Inclusion/Exclusion Criteria

When completing the Residency Project/Research Plan, the resident will have to clearly state their study design. This is typically the first sentence in the methods section of the final manuscript. The sentence should clearly designate what type of study (i.e. cohort vs case-controlled vs other) has been designed, if the project is retrospective or prospective in nature and how the study is designed to answer the hypothesis and specific research questions/aims.

The inclusion and exclusion criteria are meant to describe how patients were chosen for this study. The inclusion and exclusion criteria should be sufficiently specific so another research group could choose a similar patient population at their institution and compare their results.

Patient identification

Patient identification will be important for the reproducibility of the study. The resident should clearly state the time frame studied and how the patients were identified.

Study endpoints/variables

Using the mapping tool previously described in this document describe the endpoints which will be used to support the stated objectives. Each stated objective should have an endpoint mapped to the objective and described in the Residency Project/Research Plan. Each endpoint/variable should be described in the Data Dictionary Template. This table should describe all data that is collected and how it will be coded when collected. **Please note, it is important that data variables are defined and coded before data collection begins. Each variable should be collected as a numerical value if using Excel to each in data analysis.**

Power Analysis, Sample Size Calculation, and Statistical Analysis Resources

It is often most appropriately to utilize effect sizes from previous studies (when available) to attempt a poweranalysis and calculate an appropriate sample size. Below are several recommended online calculators:
Online Sample Size Calculator #1: https://researchmethodsresources.nih.gov/Tools
Online Sample Size Calculator #2: http://www.sample-size.net/

Utilizing the type of variable described in the Data Dictionary Template, refer to the Selected Representative Statistical Test to ascertain the appropriate statistical test for the study.

Data Dictionary Template

The purpose of the data dictionary is to clearly define all variables, including units for continuous variablesand numerical coding of categorical variables for statistical analysis.

List all data points that will be collected and provide specific definitions for each data point. For categorical variables (e.g., gender, symptom classification), assign numerical values, if needed, for statistician reference.

Demographics

Variable	Definition	Coding	Type of variable (used for statistical analysis)

Objective Findings (e.g., laboratory values)

Variable	Definition	Coding	Type of variable (used for statistical analysis)

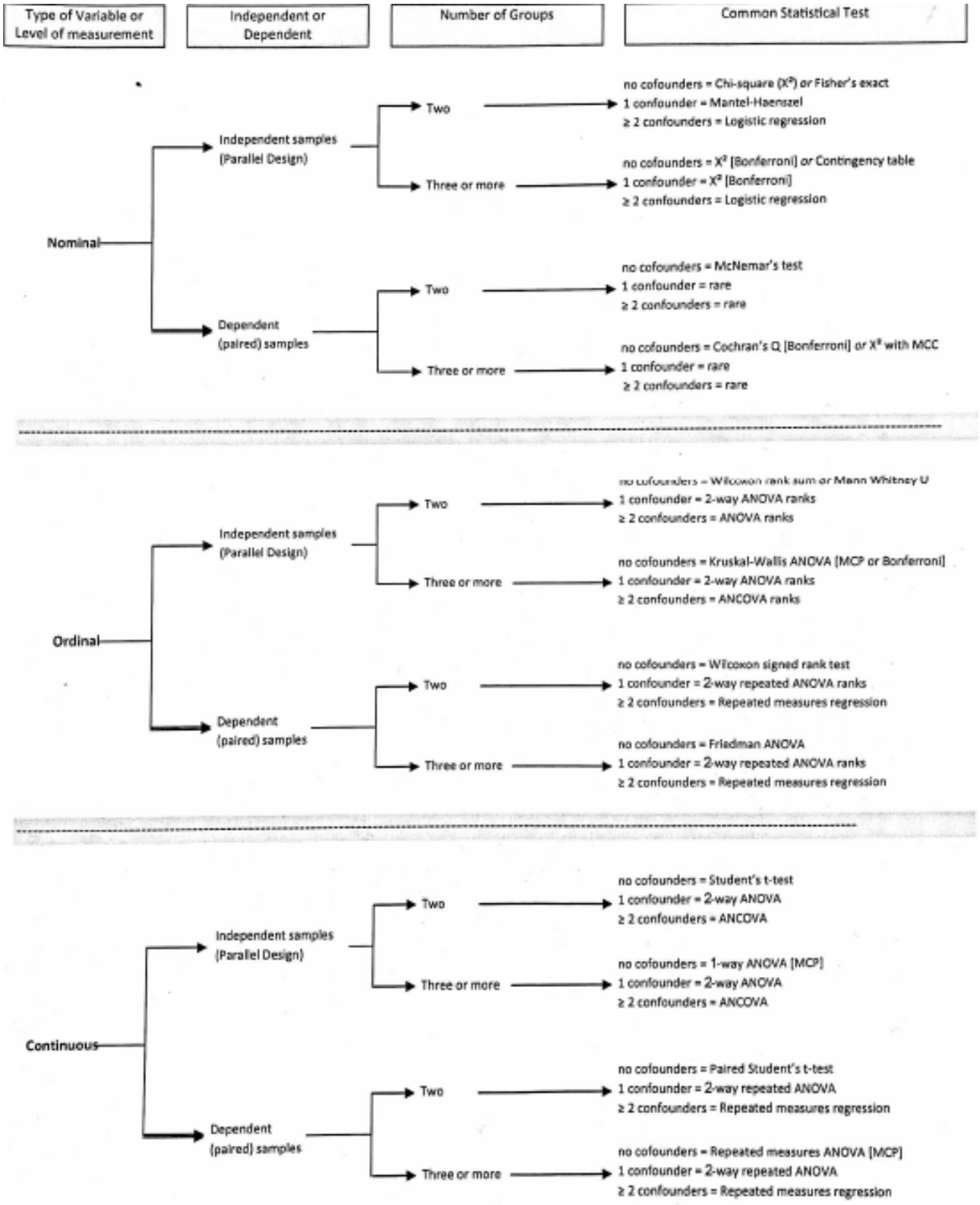
Outcomes

Variable	Definition	Coding	Type of variable (used for statistical analysis)

Other

Variable	Definition	Coding	Type of variable (used for statistical analysis)

Selected Representative Statistical Tests



Statistical Support

Study Design and Biostatics Consult Services

UCSDH Pharmacy Residents will be able to coordinate with the UCSD SSPPS Study Design and Biostatics Consult Services. Each resident will be required to fill out a form detailing their statistical needs. Options for statistical needs include study design, analytic plan, IRB submission, data visualization, and manuscript preparation. After completing this form, one of our consultants will reach out to the resident and preceptor to schedule a meeting. Preceptors are required for the Statistical Support Services meeting.

When filling out the online form, it is important that you provide as much as detail as possible for us to assist you with your project.

Each resident is allowed two hours of statistical support per year, and will mandatorily take the first hour at the beginning of the year. If the resident requires more hours, we will need to acquire special approval.

Notes: Residents are responsible for their own analyses. Services do not include training residents on how to use statistical programs or write codes for statistical analyses.

If you have questions, you can contact us directly at: sspps-pharmstatssupport-l@ucsd.edu

Recommendations for Extending Co-Authorship or Acknowledgment to an Epidemiologist/Biostatistician

When submitting an abstract and/or manuscript, researchers are advised to review the International Committee of Medical Journal Editors (ICMJE) recommendations on "Defining the Role of Authors and Contributors," available at http://www.icmje.org/recommendations/browse/roles-and- responsibilities/defining-the-role-of-authors-and-contributors.html. Based on these recommendations and the level of assistance required from COHSR/CAHSR staff (see Table 6), consider extending authorship credit(as well as, responsibility and accountability for any published work) or acknowledgement to the statisticianand/or data analyst working on your study.

Recommendations for Co-Authorship and Acknowledgement

Recommended Credit	Biostatistical services provided	The ICMJE recommends that authorship be based on the following 4 criteria:
Acknowledgment when criteria 1 is fulfilled	At a minimum, the biostatistician will assist in data analysis and/or interpretation of your study data	1. Substantial contributions to the conception or design of the work; orthe acquisition, analysis, or interpretation of data for the work; AND
Co-authorship whenall 4 criteria are fulfilled	Upon request, the biostatistician can assist in drafting sections of your abstract/manuscript (i.e. statistical methods, results section)	2. Drafting the work or revising it critically for important intellectualcontent; AND
	Upon request, the biostatistician can assist in reviewing your abstract/manuscript for final approval	3. Final approval of the version to bepublished; AND
	Upon request, the biostatistician can agree to be accountable for data analysis section of the manuscript by answering potential questions of journal editors	4. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Abstracts, Presentations, and Posters

Abstract and Platform Presentation Resources

Each conference guideline for abstract and platform presentations may vary. Please refer to abstract and presentations guidelines published by the organization holding the conference. Please refer to the UC San Diego Health Branding website for Microsoft Office and PowerPoint templates. Please verify if the PowerPoint template is 16x9 or 4x3.

Important Conferences and Websites

Conference	Website
Graduate Medical Education Patient Safety, Quality and Innovation Symposium	https://pulse.ucsd.edu/departments/QPS/Pages/PSQI-GME-Annual-Symposium.aspx
ASHP Midyear Clinical Meeting	https://www.ashp.org/
UC Pharmacy Collaborative Conference	https://www.ucpharmacycollaborative.org/

Residency Research Plan Evaluation Tool

Research Project: _____

_____**Resident**

Preceptor(s): _____

Based on your evaluation of the resident protocol, please indicate whether the following criteria are met, andprovide any additional comments, if necessary.

Criteria	Yes	No
Background appropriately summarizes previous work in field, and significance of and rationalefor the project is clearly described.		
The study has the potential to address one of the following: • Identify and improve upon issues with current patterns of medication use. • Identify and fill a significant knowledge gap in current literature.		
Study objectives are clearly stated and adequately address the study question(s).		
The study design is clearly described and appropriate given the study question and previouswork in the field.		
The proposed intervention or procedure is appropriate and feasible for addressing the studyquestion.		
The proposed analytical methodology is clear and appropriate, and potential biases areaddressed if indicated.		
Outcomes are measurable and directly relate to study objectives.		
Adequate study definitions are provided where necessary.		
Data needs are clearly identified, and data are obtainable from known sources.		
Potential obstacles are either minor or are adequately addressed, and the study can be reasonably completed by the end of the residency year.		

Additional comments:

UC COLLABORATIVE Abstract Review Scoring Rubric

		Poor (0-1)	Acceptable (2-4)	Good (5-7)	Excellent (8-10)	Score 1-10
Writing Style and Purpose (16.7%)	**Abstract clarity**	Difficult to follow; unclear purpose	Slightly disorganized; statement of purpose less clear	Easy to read and well organized; clear statement of purpose	Very well written; clear, concise and justified statement of purpose	
	Abstract elements and level of writing	Major elements are absent or misplaced	Minor elements are absent or out of place	All elements are present and written at an acceptable level	All elements are present and written at a high level	
	Language/flow	Language/flow are difficult to follow; key concepts not addressed	Language/flow are decipherable but requires some revision	Language/flow would benefit from further refinement	Language/flow is logical and effectively delivers message for a broad audience	
	Grammatical errors	Many typographical and/or grammatical errors	Few typographical and/or grammatical errors	Negligible typographical and/or grammatical errors	Free of typographical and/or grammatical errors	
Methods (33.3%)	**Study design**	Major design or methodological flaws	Incomplete design, population and analysis; significant clarification necessary	Reasonable design, population and analysis; minimal clarification necessary	Appropriate design, population and analysis	
	Reproducibility	Unable to reproduce given flawed methodology	Able to reproduce, however signification clarification necessary to understand study	Able to reproduce with limited clarification	Readily reproducible	
	Creativity	Replication of prior work	Potential to focus on novel population and/or design	Some novel aspect in patient population and/or design	Creative, original, unique	
	Statistical Analysis	Deficient statistical analysis	Inadequate statistical analysis	Appropriate and complete statistical analysis	Appropriate and complete statistical analysis	
Impact (50%)	**Impact on practice**	Unlikely to impact practice	Limited impact on practice	Potential to significantly change or impact practice	Likely to significantly change or impact practice	
	External validity	No appreciable application	Impact is unlikely to extrapolate beyond institutional practice	Impact is likely to extrapolate to external institutions, but may be limited to a	Impact is likely to extrapolate to other health care providers and external institutions	

				pharmacist only audience		

UC Pharmacy Collaborative Residency Research Evaluation Tool

UC Pharmacy Collaborative

Research Evaluation Form

Q1
[Enter Program] Ex. UCSF PGY1 Pharmacy
Research Final Presentations Evaluation

[Presentation Title] [Resident Name], PharmD

Q3 **Please rate the following: PRESENTATION CONTENT**

	Very Effective (1)	Effective (4)	Somewhat Effective (2)	Ineffective (3)
Background and methods clearly presented	○	○	○	○
Results clearly presented	○	○	○	○
Content and appropriateness of slides (7)	○	○	○	○
Learning assessment activities were appropriate (8)	○	○	○	○
Future research or project follow-up defined (9)	○	○	○	○

Q4 **Presentation Content Comments:**

_____

_____

_____

_____

Q5 **Please rate the following: PRESENTATION SKILLS**

	Very Effective (1)	Effective (2)	Somewhat Effective (3)	Ineffective (4)
Speaking skill (volume, clarity, speed) (1)	○	○	○	○
Audio visual (technique, readability, clarity) (2)	○	○	○	○
Organization, points well made (3)	○	○	○	○
Appropriate length of presentation (4)	○	○	○	○
Ability to respond to questions (5)	○	○	○	○

Q6 **Presentation Skills Comments:**

_____

_____

_____

_____

_____

Q7 **Additional Comments:**

_____

Thank you for your feedback!

Residency Manuscript Evaluation Tool

Instructions to Reviewers

The UCSDH Research Council will evaluate resident manuscripts to assess suitability for publication. A standard evaluation form will be used to adopt a positive, impartial, but critical attitude toward the manuscript under review, with the aim of promoting effective,accurate, and relevant scientific communication. Criticisms, arguments, and suggestions concerning the paper will be most useful to the author if they are carefully documented with formative feedback.

Research council members may not address deficiencies of style, syntax, or grammar, but any can give in clarifying meaning will be appreciated. Please consider the following aspects when reviewing a manuscript:

- Significance to the target scientific community
- Originality
- Appropriateness of the approach or experimental design
- Appropriateness of the statistical analyses
- Adherence to correct scientific nomenclature
- Appropriate literature citations
- Adequacy of experimental techniques
- Soundness of conclusions and interpretation
- Relevance of discussion
- Organization
- Adequacy of title and abstract
- Appropriateness of figures and tables

Very few papers qualify for an immediate, unconditional acceptance. There are many reasons to reject a paper. In general,if there are incorrect interpretations of data or any organizational or English usage flaws that prevent critical review of the manuscript, then recommend that the manuscript be modified with re-review. If you feel that the deficiencies can be corrected within a reasonable period of time, then recommend modification (e.g., accept with revision).

Overall impression of the manuscript as well as any comments, questions, or suggestions will be transmitted to the residents in a standardized format, along with the final recommendation (approved with changes versus needs to come back to Research Council after edits for re-approval).

Appendix P: UC-SWEC PGY2 Early Commitment Policy and Procedure

University of California Systemwide Early Commitment (UC-SWEC) Post-Graduate Year 2 (PGY2) Residency Programs

UC-SWEC Background

This policy applies to all Post-Graduate Year 2 (PGY2) pharmacy residency programs offered at University of California (UC) Health medical centers including UC Davis Health, UCSF Health, UCLA Health, UCI Health, and UC San Diego Health. UC Health PGY2 pharmacy residency programs offering early commitment will do so in accordance with guidelines established by the American Society of Health-Systems Pharmacists (ASHP) and National Matching Service (NMS). The policy will be maintained by the UC Health Residency Pharmacy Collaborative Team (PCT) and approved by the UC Pharmacy Chiefs, annually.

UC-SWEC Policy

1. All UC Health PGY2 programs will continue to adhere to ASHP Residency Accreditation Standards throughout the early commitment process.
2. All UC Health PGY1 residents will be informed during orientation that UC Health PGY2 residency programs offer the potential for early commitment for the year immediately following the successful completion of their PGY1 residency program.
    a. PGY1 residents should request an early learning or shadowing experience in an area where they wish to complete a PGY2 residency. These experiences are intended to help residents make informed decisions regarding the second year of training by maximizing their exposure to the specialty practice before a commitment is finalized.
3. All UC Health PGY1 residents are eligible to apply to early commitment. Only PGY1 residents with a California Registered Pharmacist license in good standing will be considered for UC-SWEC PGY2 early commitment. Good standing is determined by the local site's Residency Advisory Committee and RPD through review of the following:
    a. The majority of a resident's PharmAcademic summative evaluations demonstrate that the PGY1 resident is making satisfactory progress and is anticipated to successfully complete their PGY1 residency program requirements by the expected conclusion of the training program.
    b. There is no evidence of transgressions as outlined in the residency program's policies and procedures.
    c. PGY2 RPDs may reach out to the residents' PGY1 RPD for further information, as needed.
4. UC Health PGY1 residents may apply to multiple program types.
5. Following the UC-SWEC match:
    a. Programs will update the NMS system with position availability. Ideally, this will be done within 48 hours of candidate acceptance.
    b. Programs will login to Pharmacy Online Residency Centralized Application Service (PhORCAS) and remove eligible position(s).
    c. RPD will update UC Health SharePoint with position matching
    d. It is also suggested that the RPD also contact all non-matched candidates.
    e. The UC Health PGY2 program will pay a non-refundable fee to the NMS for each position committed to a resident through the early commitment process.

UC-SWEC Procedure:

1. There will be one stage in the UC Systemwide Early Commit (SWEC) process where all UC Health PGY2 programs with open early commitment positions will interview eligible UC Health candidates.

2. The RPD will register the program on UC-SWEC SharePoint Database. Any program that offers early commitment will register with the following information.

a. UC site
b. ASHP program code
c. PGY2 program type
d. Accreditation status
e. RPD name
f. RPD or designee email
g. Link to website and or program recruitment material
h. Number of position(s) open for early commitment

3. All submission portals application components and accompanying links will be housed on UC Health SharePoint
4. The submission portal for letters of recommendation will be housed on UC Health SharePoint. Letters of recommendation must be submitted directly by letter writers.
5. The following timeline will be adhered to during the UC-SWEC process:

Date	Responsible Party	Action	Notes
September 30	RPD	Program Declaration of SWEC	To be completed on UC Health SharePoint. Any/all open houses and supplemental application materials will be posted by this time.
October 1 – October 25	RPD	Virtual open houses	Posted on UC Health SharePoint
October 27	Resident	Early Commitment Applications Due	UC Health SharePoint
October 30	RPD	Interview invitations extended	RPDs must offer interviews to all candidates consistent with the program's pre-determined, objective criteria by October 30.
October 30 – November 16	RPD	Interviews and ranking	
November 17	RPD	Rank list due	UC Health SharePoint
November 21	SWEC	Match results	UC Health SharePoint

Required Application Materials

1. Two letters of recommendation. Letters must be written by preceptors in the current PGY1 program. One letter must come from a learning experience (aka rotation) preceptor.
2. Application questionnaire

3. 1st quarter finalized customized development plan (for applications outside of the Primary Practice Site)
4. Curriculum vitae (CV)

Optional Application Materials

UC Health PGY2 programs may elect to request supplemental application materials including a letter of intent. All programs must list their supplemental materials on UC Health SharePoint by September 30th.

Definitions:

Primary practice site (pharmacy residency): The physical location, designated by the Program Operator, where the majority of a resident's training is conducted.

University of California Health (UC Health) System (pharmacy residency): Single practice-site residency programs offered at a University of California medical center or school of pharmacy.

Appendix Q: Residency Performance Management Policy and Procedure

Policy: The Residency Program Director (RPD), Residency Advisory Committee (RAC), and preceptors will implement a performance improvement plan when one or more serious deficiencies in a resident's performance is noted. This performance improvement process is intended to initiate action that will assist the resident in correcting performance and/or behaviors that have been identified. Failure to improve performance as addressed by the performance improvement plan within the specified time frame(s) will result in the resident not receiving a certificate of successful completion and may result in involuntary release from UCSDH. Certain behaviors or actions will be considered immediate grounds for release and the performance improvement plan will not apply. Performance improvement plan procedures and grounds for release are outlined below.

Performance improvement plans may be imposed if the resident fails to meet their obligations and responsibilities inherent to successful completion of the residency-training period. This includes, but is not limited to, making progress towards achievement of learning experience objectives, completing assignments and meeting deadlines, making progress towards completion of the residency project, completing the program's requirements and deliverables as outlined in the residency completion requirements document, and completing and submitting all program evaluation materials. Performance plans or release may also be imposed if the resident acts in a manner contrary to the professional obligations (e.g., unprofessional behavior, plagiarism) and responsibilities of a pharmacist.

Procedure:

A. The RPD will conduct a thorough investigation, including meeting with the resident to investigate the concern and offering the resident an opportunity to provide information relevant to the identified deficiencies.
B. The following are examples of concerns, performance issues, or actions that may prompt an investigation to determine the need for a performance improvement plan:
    1. Failure to make progress towards achievement of an educational objective in more than one learning experience evaluation.
    2. Failure to meet required deadlines.
    3. Failure to complete assigned work.
    4. A Needs Improvement (NI) on any goal and objective on a learning experience evaluation.
    5. Consistent tardiness without an acceptable excuse.
C. Following an investigation, the RPD, in conjunction with the RAC and Chief Pharmacy Officer (CPO) will review the results of the investigation to determine the need to impose a performance improvement plan.
D. The RPD shall inform the resident of the results of the review regardless of the final decision. In addition, the RPD will contact UCSDH Health Human Resources (HHR) personnel, as appropriate.
E. Prior to implementing a performance improvement plan, counseling should be delivered verbally and in written form to address areas of resident performance and/or behavior requiring improvement or elimination to allow the resident notice of the concerns and an opportunity to improve. When the RPD, in conjunction with the RAC and CPO, determines that these informal efforts have not been successful, the performance improvement plan will be implemented.
    1. Verbal counseling will include a discussion of the issues identified.
    2. The resident will also be provided with suggestions for improvement, progression expectations, and the expected timeline for meeting progression expectations or issue resolution (not to exceed four weeks).
    3. The discussion should be documented in a follow-up email to the resident.
    4. The RPD and resident’s preceptors will closely monitor the resident’s performance to determine if expectations for progression/issue resolution are being met.
F. The performance improvement plan will be initiated if the RPD and RAC determine that the resident has not met progression expectations or corrected identified issues by the end of the expected timeline. The purpose of the performance improvement plan is to document specific, measurable, achievable, repeatable and time bound (SMART) goals for a pharmacy resident who has failed to correct identified issues and/or displays behavior that is not conducive to achieving the predetermined

objectives of the residency program. Performance improvement plans will include the following components:

1. Description of the issues that must be corrected.
2. Timeline that does not exceed four weeks.
3. Criteria for successful resolution of the corrective action plan.
4. Date and signatures of the resident and RPD.

G. Within five working days of the agreed upon timeframe for evaluation, the RPD will assess the performance of the resident relative to the plan and discuss the updated performance with the resident.
    1. If the resident was able to successfully complete the performance improvement plan, no further action is necessary.
    2. If the resident was NOT able to successfully complete the performance improvement plan, the resident will be dismissed from the residency program and released from UCSDH employment contract.
    3. If the resident is making progress but has not achieved all criteria for successful resolution:
        i. The RPD/RAC/CPO may provisionally extend the performance improvement plan timeline, up to four weeks if, based on their assessment, the resident can successfully complete the plan in this time frame.
        ii. Progression and duration of the extension will be documented in the performance improvement plan with a copy provided to the resident.
        iii. At the end of any extension, the resident will be dismissed from the residency program, released from UCSDH contract and will not receive a certificate of completion if all criteria for resolution have not been met.

H. **Release/Dismissal Criteria**
    1. Grounds for immediate dismissal from the residency program and release from contract with UCSDH include but are not limited to:
        i. Failure to obtain pharmacist licensure within 120 days of the residency start date.
        ii. Knowingly or negligently placing a patient, employee or any other person in danger.
        iii. Falsifying information on a document.
        iv. Committing plagiarism as determined by the RAC after review of the materials suspected of plagiarism.
    2. The resident is also subject to all UCSDH policies. As outlined in the resident employee contract, residents are an at-will employee and their appointment may be terminated at any time, with or without notice, and with or without cause, in a writing served on the other party.

Performance Improvement Plan

This performance improvement plan was formulated in conjunction with the RPD, preceptor and the resident. All parties are in agreement with the assessment and plan below.

Resident name:

What is the deficiency	Action plan	Determinations of success	Re-evaluation Date

Resolution of the performance improvement plan by the following date:

A copy of this signed document will be provided to the resident, preceptor, and RPD.

Resident signature

Preceptor signature

RPD signature

Date