

Appendix G Internal Medicine

PGY2 Internal Medicine Pharmacy Residency Program Overview

National Matching Service Code: 772256

The University of California (UC), San Diego Health Department of Pharmacy offers a one-year specialty residency in Internal Medicine pharmacy practice beginning August 1st.

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) and associated outpatient clinics. UC San Diego Health is affiliated with Rady's Children's Hospital-San Diego, the Veterans Affairs San Diego Healthcare System, and the Sharp Memorial Hospital Joint Blood and Marrow Transplant Program as well as 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 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 and HIV/AIDS.

This specialty residency balances the provision of direct patient care to internal medicine patients in both the inpatient and ambulatory care setting with research and teaching opportunities, and is tailored to the individual. Emphasis will be placed in providing excellent pharmaceutical care in conjunction with the multidisciplinary team as well as the facilitation of care transitions when possible. The resident will also have access to a wide variety of elective rotations.

Teaching activities include presentations (grand rounds, clinical forums, journal clubs, topic discussions, etc.), involvement with UCSD Skaggs School of Pharmacy and Pharmaceutical Sciences courses (e.g. conference leader for third year 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 both the preparation and submission of a manuscript suitable for publication will be expected.

Program Purpose:

PGY2 pharmacy residency programs build on Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency programs to contribute to the development of clinical pharmacists in specialized areas of practice. PGY2 residencies provide residents with opportunities to function independently as practitioners by conceptualizing and integrating accumulated experience and knowledge and incorporating both into the provision of patient care or other advanced practice settings. Residents who successfully complete an accredited PGY2 pharmacy residency are prepared for advanced patient care, academic, or other specialized positions, along with board certification.

Program Description:

PGY2 Internal Medicine residents will gain the skills necessary to function as the primary internal medicine pharmacist during their required core internal medicine learning experiences, with the expectation that the resident will handle all aspects of the medication process as well as the facilitation of safe and effective discharges in patients deemed high risk for readmission. Outside of the core internal medicine learning experiences, other learning experiences that will be required in order to broaden the resident's experiences and scope of practice include the continuation of care transitions during post-discharge clinic visits (ambulatory care block), management of patient populations at high risk for readmission (advanced heart failure, HIV/ID) and management of critically ill patients (ICU).

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 locations or levels of care. The resident will become proficient at resolving medication system issues when appropriate to assure 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.

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

House Officer Details:

The annual stipend is currently \$54,000. Benefits include medical, dental, and vision insurance. In addition, vacation, sick and professional leave are provided. Please visit the UC San Diego Health Pharmacy Residency webpage for more information about duty hours, leave, benefits, position description, terms of dismissal, and more. Click on the House Officer Policy and Procedure Document:

<https://health.ucsd.edu/specialties/pharmacy/residency/Pages/Salary-and-Benefits.aspx>

Requirements:

On-site 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

If matched with the UC San Diego Residency Program, matched candidates must have all of the following:

1. Graduated from an accredited school of pharmacy with a Doctor of Pharmacy degree
2. Successfully completed an accredited PGY1 pharmacy practice residency
3. Obtained California pharmacy licensure prior to beginning residency (absolute deadline to start = November 1st). The residency offer may be rescinded if the resident does not take the CPJE prior to August 1st or does not pass the CPJE on the first attempt.

Application:

Applications will be accepted when PhORCAS opens and are due by December 31st. Applications should be submitted through PhORCAS and include the following:

1. Letter of intent. Please address the following item in your letter including your own personal goals to achieve this:
 - Address your vision of an internal medicine pharmacist practicing at the top of their license.
2. Current *Curriculum Vitae* with all experiential completed and anticipated rotations as well as pharmacy work experience.
3. Three electronic references are required. At least 2 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.

Program Structure:

Descriptions of each learning experience can be found in [PharmAcademic](#).

Orientation / Staffing Training	2-4 weeks (based on previous experience)
Internal Medicine 1 (teaching service)	5 weeks
Internal Medicine 2 (hematology/oncology emphasis)	5 weeks
Internal Medicine 3 (non-teaching service)	5 weeks
Advanced Heart Failure	5 weeks
HIV & Infectious Diseases	5 weeks
Ambulatory Care	5 weeks
Cardiovascular ICU	5 weeks
Research / Projects / Admin	2-3 weeks
Elective 1	5 weeks
Elective 2	5 weeks

Required Learning Experiences:

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:

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 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 or modify existing elective rotations to emphasize transitions of care (TOC):

- Cardiothoracic Transplant
- Abdominal Transplant
- Ambulatory Care Block (clinic experiences not obtained during core ambulatory care learning experience)
- Cardiology
- Emergency Department
- Psychiatry
- Infectious Disease
- Oncology / Hematology
- Specialty ICU (must complete core ICU rotation first; Burn, Surgical, Neonatal, Neuro, Cardiovascular)

Longitudinal Clinic Experience:

The resident will have (2) 6 month longitudinal clinics in which to participate throughout the year with the Heart Failure / Cardiomyopathy Clinic being a required learning experience. Additional longitudinal clinics to choose from for the 2nd longitudinal clinic experience include (but are not necessarily limited to) Kidney Transplant, Liver

Transplant, Heart Transplant and Mechanical Assist Devices, Lung Transplant, Chronic Kidney Disease, HIV, Neurology, Hepatology, Dialysis, Refill, Cystic Fibrosis, Inflammatory Bowel Disease, Specialty Pharmacy and Anticoagulation.

Staffing:

Staffing will be incorporated into the residency experience with weekend shifts that provides the opportunity for PGY2 residents to cover patients followed by the TOC pharmacy program as well as incorporation into the traditional weekend staffing model. The PGY2 residents will be required to staff 16 weekends (9 weekends of TOC staffing and 7 weekends of traditional/operations staffing), which includes 1 minor holiday weekend AND 1 major holiday (Thanksgiving, Christmas, or New Year's). The resident will get 13 paid days for holidays and 12 sick days for the academic year. Vacation time will be in accordance with GME rules and will be defined as 20 days of vacation PLUS 5 days for professional leave to attend meetings or conferences. Please refer to House Officer Policy and Procedure Document for more detailed information about vacation. To help provide more formative feedback, residents are expected to seek feedback from at least one staff member each weekend they staff. Feedback will be solicited via an online survey:

https://ucsd.co1.qualtrics.com/jfe/form/SV_28XYFXGDfnhj0wd

Research Project:

The resident will be responsible for conducting 1 research project throughout the academic year that will be completed and presented at the Western States 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 internal medicine residents who have not previously completed the Research Primer Course are required to attend. 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 internal medicine residents who can then finish the projects that were started the previous 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. During assigned research days or weeks, the resident is expected to be onsite for *at least* 8 hours daily; preferably between 6:00 am and 6:00 pm. Any deviation from this timeframe must be approved beforehand by the Residency Program Director (RPD).

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
- Medication Use Evaluation
- Meta-analysis of a disease state or therapy
- Review article

Presentations and Teaching:

The resident will have the opportunity to give many educational lectures to their colleagues throughout their residency year. Required teaching opportunities are listed below:

Grand Rounds: The resident will deliver a 1-hour CE lecture to pharmacy staff. 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.

Clinical Forums and Journal Clubs: The resident is required to present 3 clinical forums and 3 formal journal club presentations over the course of the residency year. 1 clinical forum and 1 formal journal club is expected to be completed during each of the 3 required internal medicine learning experiences.

Clinical forums are clinically focused 20-minute presentations based on a recent patient case. Journal club topics should focus on critically reviewing a recently published journal article related to internal medicine. 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.

In-Services: The resident is required to conduct 3 in-services during the residency year with 1 focused on pharmacy technicians ('tech talks') and 1 focused on nursing staff (inpatient or outpatient). The remaining in-service 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 – UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences: Involvement with the UC San Diego's School of Pharmacy will vary but the resident is required to participate as a conference leader for one of the therapeutics courses. 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 this was already obtained through the resident's PGY1 program.

Committee / Workgroup Experience:

The resident will participate in select hospital committees throughout the year. This will include regular participation in the Heart Failure Metrics Subcommittee, the Heart Failure Steering Committee and the Transitions of Care User's Group.

Meetings:

The resident will have the opportunity to attend various professional meetings throughout the year. The annual travel stipend is variable based on funding. In the past, residents have received a set stipend for the year which they can use at their discretion for registration, travel, accommodations, etc. The cost of attending Western States (or an equivalent conference) will be deducted from the travel stipend, along with any other conferences the resident chooses to attend. Attendance at Western States Conference (or an equivalent conference to present their resident project) is mandatory.

Assessment Strategy – PharmAcademic:

The PGY2 Internal Medicine Specialty Residency Program uses the ASHP online evaluation tool called PharmAcademic, which is available for all ASHP-accredited pharmacy residency programs. This system, which is technologically supported by the McCreadie Group, supports the ASHP Residency Learning System (RLS).

Residents who are matched with this PGY2 specialty program are entered into PharmAcademic prior to their anticipated start date in August. The incoming resident completes two pre-residency questionnaires that help the 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. 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 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 program's 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 (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 to complete the all relevant exit evaluations 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 in an effort 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 and to schedule at least quarterly meetings with the RPD.

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

Staffing	Quarterly	X	X		
	End of Learning Experience	X	X	X	X

PGY2 Internal 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-Directors/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 / Graduation:

- Successful completion of all learning experiences:
 - All learning experience objectives must be marked satisfactory progress (SP), achieved (ACH) or achieved for residency (ACHR) by the final evaluation of all learning experiences. Any expectations of the residents that are not met or learning objectives marked as needs improvement (N/I) from an on-demand or scheduled evaluation will result in a meeting between the learning experience preceptor, RPD, and the resident where a plan of correction will be formulated. Failure to complete the plan of correction may result in disciplinary action.
- ≥90% of RLS goals marked achieved for the residency (ACHR) by the end of the residency year (as evaluated by individual rotation preceptors or by the RPD upon final review of the resident's progress).
 - 100% of patient care (Competency Area R1: Patient Care) goals and objectives must be achieved for the residency.
- Completion of required presentations: 3 Journal Clubs, 3 Clinical Forums, 3 In-Services, 1 Grand Rounds
- The resident will be required to complete a Research Primer Course at the beginning of the residency year and demonstrate competence as defined by the Research Council. If necessary, a remediation plan will be designed for residents who do not demonstrate competence.
- Participation as a Therapeutics Conference facilitator for pharmacy students.
- Completion of a residency project including presentation of results at a suitable conference/meeting and completion of a manuscript suitable for publication.
- Twelve months minimum is allotted to successfully complete the core requirements. If a required learning experience 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 RPD.