The Healthcare System

The Southern Arizona VA Healthcare System (SAVAHCS) has provided comprehensive, world class health care to Veterans for over ninety years. SAVAHCS is an integrated Veteran’s Affairs health care system consisting of an over 250 bed hospital, multiple primary care and specialty clinics, two urban community outpatient clinics, and five community outpatient clinics in Tucson’s outlying areas serving more than 50,000 Veterans annually.

A wide range of inpatient and primary care services are provided in the medical center including acute care medicine, primary care, surgery, neurology, infectious diseases, nephrology, endocrinology, gastroenterology, rheumatology, pulmonary, cardiology, oncology, mental health, and emergency medicine.

The 90-bed Community Living Center (CLC), located on the Tucson campus, provides advanced rehabilitation and transitional care services, including hospice, palliative care, interim care, medical rehabilitation, neurogeriatrics, geripsychiatric, and respite care.


SAVAHCS also offers Home Based Primary Care (HBPC), a comprehensive primary care in-home program provided by a physician-supervised interdisciplinary service, including heavy involvement by Pharmacy Services, for both long-term chronically ill Veterans and those needing short term home care services.

The SAVAHCS Pharmacy Service is a highly integrated, progressive clinical practice model that encompasses approximately 130 pharmacy staff members, including 30 Clinical Pharmacy Specialists in a variety of practice settings. Additionally, the Pharmacy Service is a technology and patient safety leader assisted by the extensive use of robotics and automation.

As a principal academic affiliate for the University of Arizona’s (U of A) Colleges of Medicine, Nursing, Public Health and Pharmacy, over 700 physicians, nurses, pharmacists and other health care professionals receive training at SAVAHCS annually. Additionally, the Pharmacy Service line also trains pharmacy students from the U of A, as well as other schools of pharmacy around the country.

Life in Tucson

Imagine living in Tucson, a city of 1 million people, with a large university that still feels like your hometown. Enjoy warm, sunny weather (approximately 320 days a year) and outstanding outdoor recreational opportunities including hiking, biking, swimming, golf, tennis, mountain climbing and skiing in your own backyard (yes, skiing in Arizona!). The University of Arizona offers an assortment of sports, music, theater, and dance groups that tour the United States and perform on campus. Tucson is situated two hours southeast of the Phoenix/Scottsdale metropolitan area. Close enough to enjoy all the sports, concerts, theatre and shopping opportunities without the congestion! Click here to learn more about Tucson starting on page 64:

Residency Goals and Objectives

The purpose of the SAVAHCS PGY1 pharmacy residency program is to build on the Doctor of Pharmacy (Pharm.D) education and outcomes to contribute to the development of clinical pharmacists responsible for medication-related care of patients with a wide range of conditions, eligible for board certification, and eligible for postgraduate year two (PGY2) pharmacy residency training.

Program Description

The 12-month residency program accepts up to eight PGY1 residents and is designed to provide ongoing clinical pharmacy activities while promoting the individual resident’s needs. The program provides clinical experience with a broad range of patients and disease states in various settings, while working collegially with physicians and nurse practitioners. During the year, each resident gives presentations, such as patient management conferences, in-services to nurses and physicians, journal clubs, and an Accreditation Council for Pharmacy Education (ACPE) accredited one hour continuing education presentation. A research project is required; each resident presents a poster outlining research hypothesis & methods and the completed project at a regional meeting.

Residency Preceptors

All pharmacists on staff provide direct patient care and assist in the education of the pharmacy residents. Clinical pharmacists and clinical pharmacy specialists practice in the following areas: primary care, acute care medicine, surgery, rehabilitation, interim care, geriatrics, cardiology, critical care, oncology, mental health, gastroenterology, endocrinology, infectious diseases, hospice, and emergency medicine. Preceptors place a high value on the residents and are always accessible.
# Monthly Experiential Sample Schedule

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<tr>
<th>Monthly Experiences</th>
<th>July 1-15</th>
<th>July 15 - Aug 4</th>
<th>August 5-30</th>
<th>September</th>
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| * Required learning experiences

## Extended Experiences

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<tr>
<th>4 months</th>
<th>2 months for each experience</th>
<th>6 months</th>
<th>6 months</th>
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<tbody>
<tr>
<td>Provider Newsletter</td>
<td>Formulary Management (criteria for use, order set, medication-based project)</td>
<td>CE</td>
<td>Shadowing Managers</td>
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<tr>
<td>CE</td>
<td>MUE (3 months)</td>
<td>Administrative Project</td>
<td>Quarterly ADR Report</td>
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<td>QA Project</td>
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## Longitudinal Experiences

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<tr>
<th>12 months</th>
<th>12 months</th>
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<tbody>
<tr>
<td>Anticoagulation Clinic (10 patients)</td>
<td>Longitudinal Primary Care Clinic (one-half day each week)</td>
<td>Monthly ADR Report</td>
<td>Research Project</td>
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<td>Management Conference (6 presentations) and Journal Club (4 presentations)</td>
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</tbody>
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* Elective options:
May repeat an experience in an area of interest and other electives can be selected and developed based on resident interest. (e.g. cardiology, administration)

- Academia
- Emergency Medicine
- Infectious Disease
- Oncology
- Informatics
- Specialty Ambulatory Care (Medical Subspecialty: MSS Clinic)
- Mental Health
- Geriatrics (Inpatient or Home Base Primary Care: HBPC)

Residents also provide weekend inpatient pharmacist coverage. Generally, this is one weekend each month. Staffing consists of two residents working together to perform the clinical and distributive functions of a pharmacist.

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Brief Description of Core Learning Experiences

Primary Care
Primary Care Clinics are multidisciplinary teams in a PACT model (Patient Aligned Care Team) that provide general internal medicine care to Veteran patients. PACT is also widely known as the medical home model, where the PACT team is working in partnership with the Veteran to deliver care in diverse methods. The pharmacy practice model for the clinics is an integrated approach and the primary care team clinical pharmacy specialists (CPS) manage the general internal medicine needs of patients on their assigned PACT team. The PACT CPS has scopes of practice with prescribing privileges allowing independent management of hypertension, hyperlipidemia, diabetes, anti-coagulation, smoking cessation, COPD, GERD, and management of musculoskeletal and neuropathic pain syndromes. The CPS is also responsible for assisting in the development, implementation, and monitoring of drug therapy plans for clinic patients. The CPS ensures that patients are receiving appropriate drug therapy by completing patient interviews, performing general medication counseling, and reviewing computerized medical records. The CPS also conducts medication reconciliations and provides answers to drug information questions.

Acute Care Medicine
The internal medicine teams are staffed by an attending physician, a second- or third-year medical resident, medical interns, and medical students. Additionally, the pharmacy resident, student and preceptor are incorporated in the internal medicine team. The resident is assigned to one of the teaching medicine teams at the start of the two-month experience. During the first acute care medicine learning experience, the preceptor accompanies the pharmacy resident to directly evaluate the resident’s interactions with the team. During the second acute care medicine learning experience, the pharmacy resident may be assigned to their own medicine team based on knowledge base, attitude and work ethic; however, the pharmacy resident continues to report to the preceptor. The residents and preceptors work with the decentralized pharmacists on the medicine floors to provide pharmaceutical care to the patients admitted and are responsible for patient-specific drug therapy issues for the patients assigned to the team. The majority of the time there is an APPE pharmacy student on the team and the resident serves as a co-preceptor.

Critical care
The critical care pharmacist and pharmacy resident work with the critical care medicine (CCM) team to review cases and make pharmacy recommendation for patients in the critical care unit. The primary responsibility for the pharmacy resident is the patients being followed by the CCM team. The patients in the surgical critical care area are reviewed for medication concerns as well. In addition to making pharmaceutical recommendations, the pharmacy resident evaluates, and interviews patients admitted to the Intensive Care Unit (ICU) and documents interactions and recommendations in pharmacy progress notes. The pharmacy resident attends teaching management rounds providing pharmacy input for patients and performs antimicrobial stewardship for the patients admitted to the ICU. The pharmacy resident serves as co-preceptor for pharmacy students on rotation for critical care.

Pharmacy Operations
The pharmacy resident is oriented to the dispensing role of pharmacy operations and pharmacy automation commonly seen in both the inpatient and outpatient settings. Three weeks are spent in the outpatient pharmacy setting and one week in the inpatient pharmacy setting. In the outpatient portion, the resident gains competence and proficiency in prescription verification, resolving potential issues related to medications, patient counseling, answering medication-related questions, and adjudicating non-formulary requests. The inpatient portion focuses on the inpatient pharmacy operations including IV admixture, unit-dose, ordering processing, triaging issues and problem resolution. The inpatient experience builds on the resident’s other inpatient weekend staffing training.

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Longitudinal Administrative Activities

The mission of the pharmacy administration experience is to provide the resident with the opportunity to observe and participate in the administration of the pharmacy service and develop leadership skills. Drug information and drug policy development activities occur throughout the residency. Each pharmacy resident develops or evaluates a criteria for use, develops and completes a medication use evaluation, MUE, and presents these to the Pharmacy and Therapeutics Committee. The pharmacy residents participate in adverse drug reaction reporting, and pharmacy quality improvement programs throughout the program. The residents take an active role for developing and implementing changes based on MUEs or other quality management projects. The pharmacy resident gains experience in writing, editing, and publishing both a provider and patient pharmacy newsletter. Residents participate in the leadership conference series discussing topics such as: implementing new clinical services, professional involvement, quality management, clinical pertinence and credentialing for pharmacists, human resources, health system metrics, budget and inventory management, and integrating work and life. All of these experiences are longitudinal to provide residents experience in managing a practice.

Longitudinal Experiential Activities

Longitudinal experiences throughout the residency include primary care longitudinal clinic (1/2 day weekly) and anticoagulation. Residents staff an average of one weekend each month. Staffing consists of two residents working together to perform the clinical and distributive functions in the IV room and the satellite pharmacy located on the ICU floor.

Educational Experience Activities

The pharmacy resident has many opportunities for providing educational presentations. Longitudinal educational activities include pharmacy resident presented:

- Disease state and/or medication management topic presentations (6 presentations)
- Journal clubs (4 presentations)
- ACPE-accredited continuing education presentations (one 1 hour ACPE presentation)

The pharmacy resident has the opportunity to attend SAVAHCS management conferences (grand rounds) with members of the healthcare team.

The pharmacy resident has opportunities to co-precept and teach pharmacy students. Over 40 APPE pharmacy students rotate through SAVAHCS in a year! Precepting activities and opportunities include:

- Precepting pharmacy students while on rotations (acute care medicine, primary care)
- Proctoring University of Arizona College of Pharmacy case discussions
- Proctoring University of Arizona College of Pharmacy OSCE cases
- Academia elective opportunity

Elective Opportunities

Residents choose three electives during the year. The elective time is to tailor specific interests of the resident within the training program. Common electives are oncology, specialty ambulatory care clinic, mental health, infectious disease, informatics, emergency medicine, academia (e.g. with the University of Arizona College of Pharmacy), and geriatrics. Elective experiences can be completed in any area including areas not listed on the sample resident schedule. (e.g. cardiology, surgery). Electives also can be developed based on the resident’s interest (e.g. administration). Off-site opportunities are also available for those licensed in the state of Arizona.
Research
A completed research project is required during the residency program. The resident presents his or her research at a regional meeting, as well as submits a written finalized report before the conclusion of the residency program in a format suitable for publication. A list of recently completed research projects completed by pharmacy residents is outlined below:

2019-2020
- Acid Suppression Therapy in End-stage Liver Disease
- Antidepressant Response and Continuous Positive Airway Pressure Compliance in Depression and Comorbid Sleep Apnea
- Comparison of High Dose ACEI Versus Angiotensin-Neprilysin Inhibitor in Heart Failure: A Retrospective Study
- Efficacy and Safety of Direct Oral Anticoagulants Compared to Enoxaparin or Warfarin for Venous Thromboembolism Treatment in Veterans with Metastatic Cancer
- Efficacy and safety of bicalutamide monotherapy versus luteinizing hormone-releasing hormone agonist monotherapy in Veterans with non-metastatic prostate cancer
- Impact of a clinical psychiatric pharmacist to a PCMH team within the veteran population at SAVAHCS
- Metabolic Outcomes and Safety of Using a Sodium Glucose Co-Transporter Inhibitor in the Veteran Population
- Readmission Rates of Veterans on Gabapentin, Naltrexone, and Combination for Alcohol Use Disorder
- Review of Efficacy and Safety Outcomes of Ibrutinib in a Veteran Population with Chronic Lymphocytic Leukemia

2018 – 2019
- Efficacy and safety of zoledronic acid in Veterans with bone metastases
- Determining the effect of GLP-1 agonists on total daily insulin dose in veterans receiving concomitant insulin therapy
- Risk factors for new and persistent chronic opioid use in U.S. veterans undergoing major orthopedic surgery: a retrospective case-control study
- Clinical implications of Methicillin-resistant Staphylococcus aureus (MRSA) colonization nares testing in guiding de-escalation of empiric vancomycin therapy for patients diagnosed with pneumonia
- Sacubitril/Valsartan Efficacy in Veterans at Less than Target Doses (SAVE VETS)
- Activated Partial Thromboplastin Time Versus Antifactor Xa Monitoring in Veterans with ACS Receiving Unfractionated Heparin Infusion
- Comparison of Acute Kidney Injury in Veterans Treated with the Combination of Pipercillin/tazobactam and Vancomycin, with Vancomycin and Meropenem, and Vancomycin Monotherapy
- Adjunctive gabapentin therapy in alcohol withdrawal syndrome
- A multi-center retrospective study evaluating palliative antineoplastic therapy administered and medication de-escalation in Veteran cancer patients toward the end-of-life

2017 – 2018
- Pharmacist Intervention in Heart Failure Clinic
- Descriptive Study of Insulin Use in Veterans with A1c ≤ 6.5%
- Pharmacotherapeutic Options for Statin Intolerant Veterans
- Safety and Effectiveness of DOACs in the Obese Veteran Population
- Clinical Significance of Weight-Based Cefazolin Dosing in Obese Patients for Surgical-Site Infection (SSI) Antimicrobial Prophylaxis
- Resuscitation in Sepsis and Heart Failure
- Statins for primary prevention of cardiovascular disease in veterans 75 and older
- Association of Proton Pump Inhibitors (PPIs) with Clostridium difficile – Associated Disease (CDAD) at the Southern Arizona Veteran Affairs Health Care Center (SAVAHCS)
2016 – 2017

- Perioperative Bridging in Atrial Fibrillation Subjects on Concomitant Warfarin Therapy
- Therapy Sequencing and its Impact on Clinical Outcomes in Castrate Resistant Prostate Cancer
- ASAP Trial: Assessing Safety of dual Alpha-blockers in PTSD
- Evaluation of the effectiveness and safety of pharmacological intervention versus no pharmacological intervention for the treatment of delirium in hospitalized Veterans
- Safety and Effectiveness of Very Low LDL in a Veteran Population
- Twice Daily Lisinopril in Chronic Kidney Disease (TDL in CKD Trial)
- Clinical Characteristics of *Clostridium difficile*-Associated Diarrhea (CDAD) Among the Veteran Population at SAVAHCS
- Morphine use in patients with STEMI and NSTEMI undergoing percutaneous coronary interventions
- Utilization of Oral Targeted Therapies among Veterans with Stage IV or Recurrent Renal Cell Carcinoma

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Benefits

The residency stipend is $42,005 and includes full federal healthcare benefits. Residents accumulate 13 days of paid vacation time, 13 days of paid sick time, and have 10 Federal holidays per year.

Qualifications

- United States citizenship
- Doctor of pharmacy degree from an American Council on Pharmaceutical Education accredited school of pharmacy
- Pharmacist licensure in any of the United States
- National Matching Service registration

ASHP Midyear Clinical meeting

SAVAHCS PGY1 and PGY2 Residency programs are present at the upcoming ASHP Midyear. Additional information regarding this meeting is available at the ASHP website: [http://www.ashp.org](http://www.ashp.org)

Application Packet Requirements

All application materials are due by January 2nd 11:59 PM Eastern Standard Time

The SAVAHCS PGY1 Residency program participates in the Pharmacy Online Residency Centralized Application Service (PhORCAS). Please refer to the ASHP website for details regarding PhORCAS. Incomplete applications are not considered for review.

The PhORCAS application requirements include:

- Cover letter or letter of intent specific to the SAVAHCS PGY1 Residency program
- Curriculum vitae
- Official school of pharmacy transcripts including fall grades
- Three written references**

**In addition to the PhORCAS application standard requirements, there are additional requirements for SAVAHCS that reference writers must complete. Each reference writer must provide comments for a minimum of 10 of the “Characteristics Evaluated” on the PhORCAS Standardized Reference form PLUS either complete the first three narrative comments on the PhORCAS form OR provide a traditional letter of reference that addresses the areas listed in the narrative questions. These additional requirements must be communicated by the applicant to their references.

This residency site agrees that no person at this site solicits, accepts, or uses any ranking-related information from any residency applicant.
Interviews

Interviews for the Pharmacy Residency PGY1 are conducted onsite at the SAVAHCS main campus in Tucson, AZ, from mid-January through February. Potential candidates are invited to interview based on screened application packets (please see above regarding application packet requirements); the candidate may accept the offer to interview if he/she is willing to comply with the human resource (HR) requirements outlined in the interview offer letter. Candidates who are not invited to interview are notified no later than January 30th. The interview is a panel-style interview with the program's pharmacy preceptors, current pharmacy residents as well as the pharmacy residency director or designee. Phone interviews are not offered for Phase I of the Match. Once all the potential candidates are interviewed, the list is ranked and sent to the National Matching Service. The results are posted by the National Matching Service on the designated date.

Commonly Asked Questions

Q: I do not have US citizenship, but have a green card. Am I eligible for the residency program?
A: Unfortunately, as a Federal Employer, we only accept residents with US citizenship. We are unable to accept potential residents with a green card.

Q: Do you participate in CareerPharm’s Personnel Placement Service (PPS) at the ASHP Clinical Midyear meeting?
A: We do not participate in PPS. We are available at the Midyear Residency showcase.

Q: Does SAVAHCS PGY1 residency program offer phone interviews?
A: We only have onsite interviews for Phase I Match at SAVAHCS main campus in Tucson, Arizona.

Q: Does the SAVAHCS PGY1 residency program involve teaching and/or offers teaching certificates?
A: The residency program does not offer a teaching certificate. However, precepting and educational activities are longitudinal experiences during the residency program. Please see Educational Experience Activities above.

Q: Is it possible to speak with a current pharmacy resident?
A: Of course! Please just email the contacts listed below.

For further information or questions, please feel free to email:

Stephanie Davis, PharmD, BCACP
PGY1 Pharmacy Residency Director
Email Me

Alicia Newkirk, PharmD, BCACP
PGY1 Pharmacy Residency Administrator
Email Me

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Revised 03/05/2020