

Field Notes



University of California, San Diego (UCSD) Pharmacy Program

Problem

More than 1 in 4 adults in San Diego have high blood pressure (hypertension), which increases the risk of adverse health events, including heart attacks, strokes, chronic heart failure, and kidney disease.² Although pharmacists trained in medication management are able to effectively address uncontrolled hypertension, they are often underused in caring for and treating patients with hypertension.

Program

UCSD serves patients with hypertension through a pharmacist-physician collaborative practice in three family medicine clinics. Using the Pharmacists' Patient Care Process (PPCP), pharmacists collaborate with physicians and patients to treat hypertension.

For more information:

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Overview

University of California, San Diego (UCSD) Health is the academic health system of the University of California, San Diego, in La Jolla, California. It comprises a health sciences arm, including the university's School of Medicine and Skaggs School of Pharmacy and Pharmaceutical Sciences, and the health services arm of numerous hospitals and medical clinics, including three family medicine clinics, located throughout San Diego County.

UCSD uses a pharmacist-physician collaborative practice in three family medicine clinics to help patients with chronic disease better manage their health. In shared visits with physicians, ambulatory care pharmacists use the Pharmacists' Patient Care Process (PPCP),¹ a five-step patient-centered approach to help patients optimize their health and medication outcomes. The university health system established a collaborative practice agreement (CPA) between physicians and pharmacists and a set of clinical guidelines on the role of pharmacists. Currently, two pharmacists collaborate with 10 to 12 primary care physicians in UCSD health system's three family medicine clinics to provide coordinated, team-based care. Identifying and enrolling eligible patients through primary care is the first step of the process. Pharmacists then follow the core components of the PPCP to collect, assess, plan, implement, and follow-up. Documenting care and communicating with the team underlies the entire process.

Core Component	Description
Identify and Enroll Eligible Patients	Patients identified during primary care visits as having uncontrolled blood pressure or uncontrolled A1C levels are referred to pharmacists by primary care physicians. Additionally, if eligible patients are identified on registries, clinic staff will call them and suggest they meet with a pharmacist.
Collect	The pharmacist typically first meets with the patient for 30 minutes, often accompanied by a pharmacy student or resident. The pharmacist collects information about the patient's knowledge of hypertension, the patient's blood pressure, and blood pressure goals. The pharmacist reviews the patient's electronic medical record (EMR) for medications, medical history, relevant family history, risk factors, lifestyle factors, allergies, and lab results.
Assess	The pharmacist assesses the patient's health status, lifestyle behaviors, immunization records, prescriptions, medication adherence, and side effects.
Plan	The pharmacist develops a patient care plan to set and meet blood pressure and treatment goals. Plans may include changes to dose or medications, counseling about lifestyle behaviors, and connecting with the patient's insurance company on medications coverage, if needed. The plan is shared with the physician, who then meets with the patient to answer any questions, address any other health problems, and sign off on the patient care plan during the same visit.

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Intended Participants

The UCSD health system serves an estimated 12% of San Diego's patient population in a demographically and economically diverse area of the state. Participants of the program are patients of UCSD's family medicine clinics who have hypertension or chronic diseases, such as diabetes. In 2017, the program served 375 patients with high blood pressure being seen in the three clinics.

Goals and Expected Outcomes

The primary goals of the UCSD pharmacist-physician collaborative practice are 1) improved medication management and health outcomes for patients with hypertension and 2) institutionalized practice of pharmacists implementing and sustaining the PPCP.

Among patients served by pharmacists, 85% have blood pressure under 140/90 mmHg and 69% have blood pressure under 130/80 mmHg. Additionally, in a randomized, pragmatic trial, UCSD researchers found that patients with hypertension served in a similar collaborative practice experienced greater reductions in systolic blood pressure 6 months after enrollment than patients receiving usual care.³

Through the practice, UCSD expects patients to have improved blood pressure control and reduced number of unplanned clinic visits, emergency room visits, and hospitalizations. UCSD hopes to increase productivity for clinic staff, decrease medical costs for patients with hypertension, and improve quality ratings for the health care system.

Progress Toward Implementation

The collaborative practice began in 2010 as a pilot program with one pharmacist in one clinic. In 2012, it expanded to include two pharmacists in UCSD's three family medicine clinics. The practice is funded primarily through the family medicine clinics, which bill insurance for the combined visit with the pharmacist and physician. Reimbursement typically does not cover the full cost of the services the pharmacist provides. Although program staff would like to expand access to pharmacists and serve greater numbers of patients, it is unclear if there is sufficient financial support to do so.

Enabling Pharmacy Care

UCSD relies on shared patient visits, in which pharmacists and physicians meet with patients sequentially during the same appointment to enable frequent, open communication. The work is supported by a CPA that provides pharmacists relative autonomy in patient care and an extensive EMR that allows pharmacists to access dashboards of their patient registries to review patient data. Moreover, UCSD has integrated the PPCP framework into the curriculum to train pharmacy students, residents, and teachers on its core components. Pharmacy students and residents routinely participate in clinic rounds with pharmacists.

Implement	The patient care plan is assessed, modified, and implemented by the pharmacist in collaboration with the patient and the physician. The pharmacist instructs the patient on medication use and self-monitoring; discusses health behaviors, and lifestyle and medication modifications; provides educational materials on diet and lifestyle behaviors; administers vaccinations; and makes referrals to specialists.
Follow-up	Monitoring and evaluating the effectiveness of the care plan occurs during follow-up visits, typically every 1 to 2 weeks until at goal, then every 3 to 6 months to maintain goal. Throughout the follow-up period, the pharmacist evaluates drug effectiveness and safety, and makes necessary modifications.
Document and Communicate	The pharmacist documents in the patient's EMR, information collected, patient care plans developed, and medication modifications made. Communication between pharmacists and physicians occurs largely through in-person discussions during the shared patient visit. The pharmacist communicates with other members of the patient's care team throughout the patient care process.

¹Joint Commission of Pharmacy Practitioners. Pharmacists' Patient Care Process. 2014: 1-6. Available at: <https://www.pharmacist.com/sites/default/files/files/PatientCareProcess.pdf>.

²County of San Diego Health and Human Services, Community Health Statistics Unit. Healthy People 2020: How Does San Diego County Measure Up. Website: <http://www.SDHealthStatistics.com>.

³Hirsch JD, Steers N, Adler DS, et al. Primary care-based, pharmacist-physician collaborative medication-therapy management of hypertension: a randomized, pragmatic trial. *Clinical Therapeutics*. 2014;36(9), 1244-1254.