

## Clinical pharmacists can fill in healthcare gaps

With the time often not available to physicians, they answer questions, give exercise and nutrition tips, offer encouragement and, most important, build trust.

By Karen Ravn, Los Angeles Times  
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When he arrived for his first visit, the 55-year-old diabetic had no idea what constituted a healthy diet, says pharmacist Steven Chen.

"He ate two or three dinners a night, such as two whole pizzas about an hour apart." And he didn't know how to manage low blood sugar attacks. "He would eat an entire pie or cake instead of the recommended one serving of carbohydrate every 15 minutes."

Not only did Chen advise his patient about good nutrition and exercise, he stressed the importance of taking his medications every day exactly as prescribed. For instance, the patient had been injecting insulin deep into muscle instead of into the fat layer under the skin and had also been switching injection sites between his upper arm and his abdomen. Both interfered with the effectiveness of the insulin.

The patient had a lot to learn, but he was an excellent student, and in their weekly visits, he and Chen became true partners in his healthcare. And it paid off.

"The patient lost about 15 pounds," Chen says, "by exercising daily and cooking for himself. He even grew his own organic vegetable garden." And after almost two years, the patient was able to control his blood sugar with a single pill (metformin) and stop taking insulin completely.

Chen is not a typical pharmacist perhaps, but he is one of a growing subset. Called clinical pharmacists, these pharmacists provide direct care, using their expertise to

ensure that patients receive the most appropriate medications and that they take them properly. These professionals often spend time with patients that physicians can't.

Chen, an associate professor at the USC School of Pharmacy, practices at the JWCH Institute, which provides healthcare to a poor, homeless, under-insured population in Los Angeles. There, he's a member of a team that includes a physician, a case manager, a nutritionist and a master of social work.

Chen is also faculty co-chair of the Patient Safety and Clinical Pharmacy Services Collaborative, a national project under the Health Resources and Services Administration that is working to integrate clinical pharmacy services into the care of patients with chronic diseases.

Evidence shows that when clinical pharmacists collaborate with physicians, they improve health outcomes. And with their extensive knowledge of available drugs, pharmacists can help to save money by using the most cost-effective ones.

"Traditionally, pharmacists have not been seen as caregivers, says Dr. Paul Gregerson, chief medical officer for the institute. "But these days, they fill a gap that has been left in the current healthcare system where physicians are so rushed."

It's routine at the institute for physicians to "pass on" some of their most difficult patients -- i.e., patients who have had the most trouble controlling chronic conditions

such as diabetes and high blood pressure -- to the care of the pharmacists.

Sometimes patients are initially unhappy with such referrals, Gregerson says. "They'll grumble, 'Oh, I've been sent off to a pharmacist.' They don't realize it's the best thing that could happen to them."

Pharmacists review the patients' medical and medication histories, evaluate their drug therapy (changing it if necessary), order routine lab tests and monitor medication compliance. Best of all, perhaps, the pharmacists teach and encourage the patients, empathize with them and build their trust.

"They may be afraid to tell their physicians they're not taking all their medications," Chen says. "But they'll tell us."

Pharmacists see the patients once a week until they reach their goals, when their physicians take charge of their care again.

"They come out different than when they went in," Gregerson says, "better educated, better able to understand and contribute to their own care. . . . It's like a transformation."

A study currently under review for publication found that diabetes-related health outcomes are significantly better in clinics that integrate clinical pharmacists into their practice than in clinics that do not.

More than a decade ago, Brigham and Women's Hospital in Boston cut the number of adverse drug events in its intensive care unit by nearly two-thirds simply by having a pharmacist make patient rounds with the ICU team and advise physicians in prescribing medications. Not only was this a boon for the patients, but the hospital

estimated this practice could reduce costs by \$270,000 a year.

But Gregerson says clinical pharmacy is just now coming into its own because doctors have so little time to spend with their patients, and pharmacists can help fill the gap that leaves.

"Necessity is the mother of invention," he says. "And people are dumbfounded sometimes when they learn what these pharmacists can do."

He adds: "You're going to hear about clinical pharmacy a lot in years to come."

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