

Automated text messages help patients manage their diabetes

KATHY ROBERTSON | STAFF WRITER

Evelyn Lyons gets up hungry and wants to eat — but is supposed to check her blood sugar first.

Daily testing was hit-or-miss until she agreed to take text messages at 7:30 every morning to remind her do the test, record the results and take her medicine.

Lyons is participating in a pilot program that helps diabetes patients and their doctors at Sacramento Family Medical Center manage a chronic condition that affects one in 12 Americans. It's about one in seven at Sacramento Family Medical, which operates nine clinics in the region that serve patients on Medi-Cal, the government health care program for the poor.

Sacramento Family Medical Center Inc.

Business: Treating 45,000 low-income adults and children in the Sacramento region

Locations: Nine, from Elk Grove to North Highlands

Employees: 80

Contact: Dr. Gil Simon, medical director and chief executive officer at gsimon@sacfamily.com

Launched in August, the program has had a few bumps along the way, but it's beginning to change behavior.

"I'm glad to be part of it," Lyons said. "Before, I wasn't taking it as serious as I should."

Ultimately, the program is expected to lower costs.

Diabetes is the leading cause of kidney failure and blindness among adults and contributes to a slew of other health complications, from heart disease to kidney failure. Yet the disease can be managed by diet, exercise — and consistent medication. If Sacramento Family Medical decides to go ahead with the program after the pilot, it will cost \$10 to \$15 per patient per month, depending on volume.

"I see this as a contact point to help keep track of our patients," said Dr. Gil Simon, medical director and chief executive officer for the company.

Ultimately, the goal is to reduce complications and keep patients from going to the emergency room in crisis.

Annual health care costs for patients who monitor their blood sugar and take their medications are almost \$3,800 less than those who fail to manage their disease, according to a study in the January 2011 edition of the journal Health Affairs.

'THE LAST MILE IN PATIENT CARE'

Diabetes is characterized by high blood-sugar levels that result from defects in the body's ability to produce or use insulin, a hormone needed to convert sugar, starches and other food into energy needed for daily life. When the body doesn't produce insulin or the cells ignore it, a variety of medical complications ensue.



DENNIS McCOY | SACRAMENTO BUSINESS JOURNAL

At 7:30 a.m., Evelyn Lyons gets a text message reminding her to check her blood sugar and take her diabetes medication.

A total of 25.8 million children and adults in the U.S. — 8.3 percent of the population — have it.

The condition can be managed with insulin therapy and other treatment. But getting patients to take their medication the way they are supposed to is a big problem. Typical compliance is about 50-50. Daily reminders help, studies show.

A variety of software programs are available, but the one launched by Sacramento Family Medical was developed by a Connecticut company, MedAdherence LLC.

The automated system sends daily text messages to patients to remind them to check their blood sugar, text back the reading, and take their insulin and other medicine. If the reading comes back too high, the system tells patients if they need to change the dose or make an appointment to see the doctor.

If patients don't text, they can use a cell phone. If they don't have a cell phone, they can use a land line.

The information flows into the patient's chart once a week so trends can be tracked. If there is a blip that suggests need for intervention, the doctor is notified.

"We are trying to be the last mile in patient care," said Jonathan Katz, chief executive officer at MedAdherence. "After they leave the clinic, there's generally not a lot of interaction with the patient."

The company has piloted the program in three other medical practices, two in New York and one in the San Joaquin Valley town of Tulare.

"We've seen marked improvement," Katz said. For most medications, patient compliance to the prescription regimen typically falls to about 50 percent after 90 days, Katz said.

"After five months, 80 percent of our patients are active on the system," he said. "Not a direct comparison, but in most programs, you do not see that level of active patients."

Dr. Vivian Fonseca, chief of endocrinology at Tulane University in New Orleans, has launched a randomized clinical trial of the MedAdherence system.

"Compliance is a huge problem," he said. "We won't know until we do the study, but if this works, it will be very helpful."

'GOOD MORNING. DON'T FORGET ...'

The program is voluntary. Patients can pick the time slot for a call and request messages in Spanish.

The idea is to get patients to check their blood sugar and text results without a prompt. The text message only comes if the patient doesn't check in voluntarily before the scheduled time for a reminder.

The program sends educational information, reminders of the next doctor's appointment or scheduled refills, too.

"There's a lot of stuff like that going on," said Bill Sandberg, executive director of the Sierra Sacramento Valley Medical Society. "Managing people with chronic disease has been around for years, but the technology has been kinda clunky. Now, email and texting has changed that. The most successful are supportive and encouraging, versus the authoritarian: 'I am the doc, you're the patient, do what I say.'"

Lyons, 54, was diagnosed with diabetes in 2003. She's struggled with her part of managing the disease.

Now, if she doesn't send in her test results, she gets a text at 7:30 a.m. It says, "Good morning. Don't forget ..."

"It's not an intrusion," Lyons said.

"I wasn't really doing the fasting before," she added. "It's keeping me on my toes on blood sugar and medicine."