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INSIDE TODAY



TODAY INSIDE THE Arizona Republic

Diabetes checks may work by cellphone

A Scottsdale start-up company, MedApps Inc., develops a software system that analyzes diabetes patient data sent wirelessly from a cellphone to a central server. **Business. D1**

SCOTTSDALE TOURISM

WestWorld panel debates auction plan

A WestWorld committee debates a proposal by the Barrett-Jackson Collector

Bush s at GOI



Monitoring diabetes from a distance

Scottsdale firm hopes checking glucose levels becomes easier with its new wireless system

By Andrew Johnson
THE ARIZONA REPUBLIC

"The system monitors you passively in the background. If you're doing fine, it leaves you alone. If you're not, it may call you and ask you a couple of questions."

Kent Dicks
(pictured below)
MedApps president and
chief executive officer

Software that relies on wireless technology to transmit diabetes patients' data from their cellphones to an online server that checks their blood-sugar level is about to be tested by a Scottsdale-based startup company.

The system gets the data from a diabetes patient's glucose-monitoring device and sends it to his or her cellphone. MedApps Inc. plans to begin a pilot study of its D-PAL system with 50 Medicare and Medicaid recipients in Pennsylvania in the next few weeks.

If a patient's glucose level is above or below his doctor-recommended range, an automated voice-response unit will call and ask the patient yes-or-no questions about his or her diet, exercise, medication intake and other behavior.

The information may be forwarded to a nurse call center or the patient's physician.

"The system monitors you passively in the background," said MedApps President and Chief Executive Officer Kent Dicks. "If you're doing fine, it leaves you alone. If you're not, it may call you and ask you a couple of questions like, 'I saw you had a low blood pressure. Did you

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HOW IT WORKS

1

Patient checks blood sugar, and software in glucose-monitoring device transmits information to the patient's cellphone.

2

Cellphone sends information to MedApps Inc.'s online server.

3

If a patient's glucose level is out of doctor-recommended range, an automated voice-response unit will call to ask the patient questions. Patient's answers determine whether there will be any medical follow-up.

SUZANNE STARR/
THE ARIZONA
REPUBLIC



Starting or growing a business? Reporter Andrew Johnson covers your world in his new Entrepreneurs blog. Go to www.blogs.azcentral.com and click on "Business Blogs."

Today's focus:

INNOVATORS

Scottsdale firm developing system to monitor diabetes

DIABETES

Continued from D1

take your medication today? Did you exercise?"

Patient monitoring

D-PAL is just one example of what medical-device companies are doing to use remote patient monitoring.

The concept has gained steam in recent years as federal lawmakers and health care providers try to curb rising medical costs. The idea is that costs will decrease if patients regularly monitor ailments and take better care of their health.

Medical expenses for people with diabetes were 2.4 times higher than for those without diabetes in 2002, according to the latest data available from the American Diabetes Association.

Proponents of remote patient monitoring say using "telehealth" technology also enables patients living in communities with limited access to medical care to better monitor their conditions.

Disease management

MedApps' device relies on "store and forward" technology, which records information and sends it to a database via phone.

Other companies have created tools that allow diabetes patients to transmit data via landline or Internet connection. MedApps is one of just a few companies, however, that are trying to use cellphone technology.

"You don't want to have to be constantly going back home to have to be monitored," Dicks said. "This allows you to go about your normal business during the day, travel to wherever you want to travel to as long as there's cellphone connectivity around and be monitored."

If a person is not near a wireless connection, the system can store the data on his or her cellphone and send it to the server once a connection is available.

Such a device would be especially helpful for parents of children who have diabetes, said Marci Zimmerman, executive director of the Desert Southwest chapter of the Juvenile Diabetes Research Foundation.

"Anything that we can arm our par-

The MedApps Inc. story

Kent Dicks founded MedApps Inc. in July with the help of Braintrust Group LLC, a consortium of marketing and product development experts that Dicks pulled together earlier in the year.

The purpose of Braintrust is to bring new products to the marketplace through startup companies using the expertise of its 10 members.

When Dicks began working on the D-PAL project, he decided to put it under the Braintrust umbrella.

To date, Dicks says he has invested about \$200,000 of his own money into MedApps to help pay for everything from product development to the upcoming pilot program in Pennsylvania. The company also received \$30,000 from the Research Institute for Disease Management Control, a Scottsdale-based non-profit organization.

The institute received a \$30,000 grant from Heinz Family Philanthropies in Washington, D.C., which funds non-profit organizations specializing in health and the environment.

MedApps contracted with the Research Institute for Disease Management Control to develop the D-PAL system.

It could cost MedApps between \$7 million and \$10 million to get the system to market, Dicks said. The company plans to target large disease-management companies first and focus on the consumer market in a couple of years.

— Andrew Johnson



SUZANNE STARR/THE ARIZONA REPUBLIC
MedApps is about to test the One Touch Ultra device, which checks a diabetes patient's glucose levels and sends the readings via cellphone to an online server.

ents with to help them manage their child's diabetes the better," said Zimmerman, who noted that parents of diabetes must rearrange their schedules to monitor their children's blood-sugar levels.

Mesa resident Eric Spielmon has been using MedApps' system on a trial basis for about a month.

Spielmon, 36, said he could see how using the system could be a benefit for

older diabetics but said he measures and records his blood-sugar levels, so he would not pay to use the system.

"I don't need a nurse to call me," he said. "I know when my blood sugar's low. I know when my blood sugar's high. I don't need anyone to tell me."

MedApps plans to first market the device to disease-management companies that oversee care for Medicare and Medicaid patients. The system would cost the companies about \$300, plus a \$65 monthly user fee, Dicks said.

Eventually, the system could be available for any diabetes patient, but the company has not yet determined a cost.

A system like D-PAL could help physicians gather more accurate data on diabetes patients, said Dr. Kris Vijay, who has a background in endocrinology and now works at Scottsdale Cardiovascular Center and Scottsdale Cardiovascular Research Institute.

Vijay said getting diabetes patients to keep track of their blood-sugar levels daily is often a challenge for doctors.

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