HealthData Management

Study: Web, Mobile Tools Help Control Glucose Levels

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Diabetic patients using Web and mobile computing tools lowered their blood glucose levels more during a one-year study than patients in a control group receiving usual care.

The test at the University of Maryland School of Medicine tested the effectiveness of combining regular patient checking and documentation of their glucose levels with coaching via computing devices. The test included use of the Diabetes Manager System from Baltimore-based WellDoc Inc., which received Food and Drug Administration approval in July 2010 and will be commercially available this fall.

The application enables Type 2 diabetic patients to enter their blood sugar readings into a secure Web site via a computer or their mobile phone and receive real-time feedback on what they should eat and other ways they can help stabilize their blood sugar. The software also can alert patients when they need to test their levels.

The Diabetes Manager System also enables analysis of the data and access by a patient's physicians and disease management case workers. It supports glucose meters that can send data via Bluetooth wireless technology.

In the test, the mean decline in glucose was 1.9 percent in the group using the Web and mobile technology and 0.7 percent in the control group. A one percent drop in glucose levels can reduce risk factors by 37 percent, according to research previously published in the British Medical Journal.

The new study, "Cluster-Randomized Trial of a Mobile Phone Personalized Behavioral Intervention for Blood Glucose Control," is published in the August issue of *Diabetes Care*. It is available here for $45 for 30 days access to the journal.