

Time to Take Your Medicine

Text Message Reminders Help People Take Their Prescriptions on Time

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Americans are busy people, and with everything that goes on in our daily lives, remembering to take a prescribed medication can be a challenge. But studies show that forgetting your medications has consequences, including creating a more serious and even dangerous health issue. According to *The New England Journal of Medicine*, nearly 70 percent of medication-related hospital admissions in the United States are the result of not taking a prescription medication as directed by a doctor, known as medication

adherence, costing the health care system roughly \$100 billion per year.

Medication adherence is essential in achieving the full effectiveness and optimal outcomes of most medication regimens. It has been estimated that 20 percent to 50 percent of patients are nonadherent to their prescribed therapies, with even higher rates ranging from 40 percent to 86 percent seen in the elderly. This leads to poor health outcomes and increased utilization of health care resources.

Several barriers exist to improving patient medication adherence including, among many others, forgetfulness, complexity of treatment, side effects of medications, cost and access to medications.

The good news is that there are new technologies that are helping remind patients to take their medicines, such as text messages that arrive at a precise day and time. In fact, a recent study of 580 patients with chronic diseases such as diabetes or hypertension showed that text messaging could help patients stick to their medication schedules.

The study, published recently in *Clinical Therapeutics*, showed that patients who participate in a text message prescription reminder program have significantly higher adherence to chronic oral medications than those in a control group. Patients receiving text message reminders had better medication adherence rates than those who did not – 85 percent vs. 77 percent. The adherence rates for those taking chronic anti-diabetes medication were even higher – 91 percent vs. 82 percent.

And text messages are not only for the young, tech-savvy generation – those over age 60 also showed significant improvement with text message reminders. (It's interesting to note that a survey by the Pew Internet & American Life Project found, for the first time, half of adults 65 and older are now online.)

The text message study was the first large-scale study in the United States to examine if a text message program providing medication-specific reminders could increase adherence. Previous research has shown a similar positive impact; however, those studies were smaller

in scope, often with fewer than 100 participants, and focused on homogenous patient groups, such as those who are being treated for the same disease.

The research provides strong evidence that technology can play a vital role in improving medication adherence, even among older patients. This is of great importance to all stakeholders in health care because poor medication adherence can lead to inferior treatment outcomes, higher hospitalization rates and increased health care costs.

With most text message adherence programs, participants can opt to provide their mobile phone number, mobile carrier and time zone, and select any combination of reminder choices: Refill; Renewals; Prescription Transfer; Order Shipped; General Daily Medication Reminder; and Prescription Specific

Dosage Reminders. Often, these text message reminders can be set for active prescription drugs as well as over-the-counter medications, and consumers can specify how often they wish to receive the reminders.

Text messaging is a common, widely accessible, and relatively inexpensive form of communication. These mobile-based reminder services are designed to make it easier for individuals to remember to take their prescription medications and refill or transfer a prescription to mail service.

When used in conjunction with current telephonic reminders and educational mailings, text messages and other emerging technologies can offer new opportunities to educate and engage patients so they can improve their health and help rein in their health care costs. Ultimately, with the multitude of barriers to medication adherence,

several strategies may need to be utilized, possibly in combination, by a managed care organization to effectively reach all types of patients.

Dr. Brian Solow, M.D., F.A.A.F.P. currently serves as the chief medical officer for OptumRx, one of the Optum companies of UnitedHealth Group. In this capacity, his primary responsibilities include leading the Clinical Services team and guiding their tactical and strategic endeavors. Dr. Solow and his team have introduced evidence-based clinical programs, emphasizing balanced consideration for the clinical interests of patients, prescribing health care professionals and clients based on sound, scientific data, including the Medication Therapy Management (MTM) and Disease Therapy Management (DTM) programs. Prior to becoming the chief medical officer, Dr. Solow served as the vice president, senior medical director.

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