

Pharmacy Direct PREPACKAGED DOSES

BY JEAN LAWRENCE



In an effort to make it **EASIER FOR PATIENTS** to fill their prescriptions, some doctors' practices are bringing in **VENDING MACHINE-STYLE** dispensers.

When patients leave Abbott Northwestern hospital in Minneapolis, they can now head straight home rather than to the drugstore. They already have their medications in hand, having extracted their first prescription from an ATM-like vending machine in their doctor's office.

Ken Rosenblum, M.D., CEO of Mendota Healthcare in Minnetonka, says the need for such a system hit him one night when he was roaming the city looking for an open pharmacy to fill a prescription.

Though there were many nearby pharmacies, Dr. Rosenblum couldn't find one open at that time of night. After doing some investigation, he found that pharmacies are facing a critical, nationwide pharmacist shortage. Along with pharmacists, doctors, and engineers, Dr. Rosenblum spent the next two years developing the InstyMeds prescription dispenser. An on-site pilot program that began in April 2001 has been completed successfully and the system is now being expanded to other locations.

The InstyMeds dispenser holds about 80 commonly prescribed medications, doses, and quantities, including pills, liquids, suspensions, creams, inhalers, and eyedrops. The doctor enters a prescription electronically, using a PDA or similar device, with the software supplying the correct dose for the patient's weight. The physician then asks the patient: "Do you want to get this from the drugstore or would you like to pick it up on the way out?"

If the patient elects to pick up the prescription on the way out, a voucher with a security code is issued instead of a standard prescription. The prescription is entered into the patient's chart and merged with insurance information, thus ensuring the drug is on the formulary.

To obtain the medication, the patient inserts the voucher into the machine, supplying their credit card, debit card, or cash if there is a co-pay or if they don't have insurance. After passing through three barcode checks, the medication is

dispensed like a candy bar. A standard label is applied by the dispenser and all required usage and warning instructions accompany it, just as they would in a pharmacy.

"It's very simple to use," reports Keenan Richardson, M.D., of South Lakes Pediatrics, which conducted a pilot study using InstyMeds. "There is no legibility issue. I have not found an error."

The medications are repackaged into unit-of-use containers and are sent via courier to the

doctor's office, where they are loaded into the machine. Dr. Rosenblum emphasizes that the system reduces errors to almost zero and increases compliance. One in four prescriptions are never filled, he points out. The InstyMeds system ensures the patient receives the medication that the doctor prescribed.

"This system sure beats dragging sick kids to the pharmacist," Dr. Richardson adds. Of the 60% of patients who have opted to use InstyMeds, 94% say they want to use it again.

Patient Point of Care Options

IN-OFFICE PRESCRIPTION FULFILLMENT — EASES BURDEN ON PATIENTS AND PHYSICIANS

InstyMeds prescription dispensing system is the first fully automated, ATM-style dispenser of prescription medications. There are currently a number of handheld prescription entry devices and electronic medical record (EMR) systems on the market. Interfaces can be developed with any of these systems to automatically receive prescription information. However, the company also has created its own PDA-based prescription entry application. Its unique interface allows a physician to conveniently enter a prescription using only one hand (and no clicks) and no graffiti writing. A patent is pending on this design. Drug dosages are calculated automatically.

The patient has the choice of receiving a printed prescription to bring to a pharmacy, or receiving a voucher for medication at the InstyMeds dispenser in the medical clinic. Whichever method the patient chooses, handwriting errors are eliminated.

Although the company anticipates that future models will vary in size, the current model holds 80 different medications and from 8 to 22 bottles of each drug. (For most specialties, 45 drugs represent more than 80% of what is prescribed.) The unit is capable of labeling and dispensing nearly any form of medication, including tablets, capsules, inhalers, sprays, creams and ointments, suspensions, and syrups.

Since InstyMeds interfaces with the medical facilities registration system, there is no need to re-enter insurance information, and insurance approval is obtained real time. If there is an insurance issue, it is routed to the InstyMeds call center freeing up the medical staff from time-consuming pharmacy callbacks.

PD-Rx Pharmaceuticals' "SOS" Program is a pharmaceutical sampling program designed to save managed-care organizations and self-insured organizations money in pharmaceutical care expenditures in several therapeutic categories.

Prefilled medications of the most commonly prescribed drugs are purchased from PD-Rx. Depending upon the preference, prefilled medications can be in the form of brand name or generic drugs and

over-the-counter samples. Medical professionals provide these prefilled prescriptions directly to MCO and SIO patients free of charge or for a small co-pay. The result is a significant cost savings to MCOs and SIOs, based on a reduction of inappropriate usage of brand-name medications, cost shifting to samples of OTC products, and a reduction in dispensing fees based on the direct sampling of the "SOS" products.

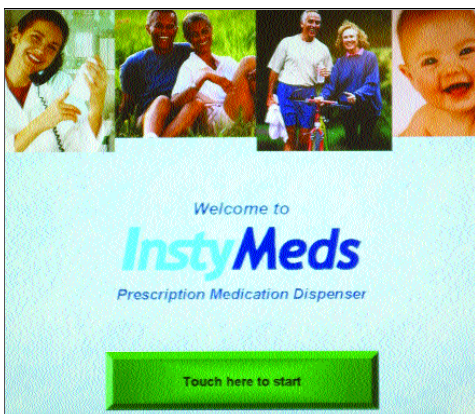
Allscripts Healthcare Solutions' FirstFill is a new service that enables the physician to fill the patient's first prescription, for the most commonly prescribed medications, at the point of care. Instead of handing out a sample, doctors can now provide patients with a complete prescription and save them a trip to the pharmacy.

The FirstFill advantages include improving outcomes, since patients take their first dose at their physician's office, increasing compliance (one out of five prescriptions are never picked up at the pharmacy), providing instructions directly to the patient, increasing patient satisfaction (97% of patients prefer to receive their medication at

their physician's office), saving patients both time and additional hassles, improving bottom line for a practice, and reimbursement for providing this service to patients.

FirstFill automates the entire medication delivery process. For the first prescription, the functions that a pharmacist would typically handle (counting pills, clarifying handwritten scripts, checking for potential drug interactions, checking for formulary compliance, printing a label, managing inventory) are handled automatically through the TouchWorks software provided with the FirstFill program. The process is simple: the prescription is checked for insurance formulary compliance, the prescription is checked for prior adverse reactions and potential drug interactions, the claim is handled online, and the medication is prepackaged with a tamper-proof safety seal.

An automated inventory management process reduces time spent answering pharmacy calls. And, only the most commonly prescribed medications are kept in stock.



JACK MCCALL



If the **MANAGED-CARE COMPANY** buys a month's dose of a diuretic for example, for a couple of dollars ... instead of a \$30 brand-name drug, **THE SAVINGS CAN ADD UP QUICKLY.**

With the one-year test a success, Dr. Rosenblum has contacts with three hospitals, and is negotiating with a 15-hospital system. Another customer may be the retail pharmacies. "There is nothing more frustrating than seeing your prescription behind a barred window after hours," Dr. Rosenblum says. "In this case, the individual would call in the prescription and be given a code to retrieve it from the machine in the drugstore. InstyMeds dispensers could save the average chain drugstore \$100,000 a year in staffing costs."

IN-OFFICE FULFILLMENT

Taking a somewhat different approach, First-Fill, a program offered by Allscripts Healthcare Solutions, supplies about 15,000 doctors with special computer stations and fulfillment cabinets stocked with the most-prescribed drugs in prepackaged form. Using the FirstFill software, the doctor checks the patient's chart for allergies and adverse reaction, before the office nurse issues the properly labeled bottle. Patients take their first dose on the spot. What's more, the physicians collect the co-pay and can make as much as \$10 profit on each medication.

According to IMS Health, U.S. pharmaceutical manufacturers distributed almost \$8 billion of product samples in 2000, more than half

of the \$15.6 billion the industry spent in promoting its products to both doctors and consumers.

In a third variation, PD-Rx Pharmaceuticals Inc., a pharmaceutical packaging company, offers use-dosing in the doctor's office to managed-care and self-insured companies as a way to steer patients to the most cost-effective medicines.

"We have provided more than 1.5 million prescriptions to managed-care companies," says Jack McCall, executive VP of PD-Rx. "If the MCO buys a month's dose of a diuretic, for example, for a couple of dollars and the patient begins taking this medication instead of a \$30 brand-name drug, the savings can add up quickly."

Managed-care companies alert PD-Rx as to which drug classes are showing high activity. For example, the MCO might note that prescriptions for NSAIDs are high at that time.

"Why not dispense 800-milligrams of ibuprofen free instead of sending the patient to buy Vioxx, which costs the insurer more," Mr. McCall says. "It can be a month's worth or just a trial, in either case

there is substantial savings to the MCO and the patient."

One company, Mr. McCall says, saved \$1.2 million in one year this way. And the patients like it because there is no co-pay and it is convenient. "These are first-line therapies," Mr. McCall says. "Generic medications are always a cost-effective first-line consideration and can be the best choice."

A study in the *Journal of the American Medical Association* asserts that 10% of 548 drugs studied were taken off the market or given belated serious side-effect warnings after approval. Researchers suggested that older drugs be prescribed when possible unless the new medication represents a true breakthrough.

DETERMINING SIDE EFFECTS

What are the implications of prescription-dispensing shifting to the emergency room? Firstly, Dr. Rosenblum notes that doctors need to give use instructions and follow up on side effects. In addition, a telephone link to a licensed pharmacist is provided.

As for the pharmacists' record-keeping function, Dr. Rosenblum explains that the overview of the patient's medication use now rests with the insurance company paying the claims, rather than an individual pharmacy. Follow-up pre-

scriptions, of course, are filled by a local or mail-order pharmacy. "If 25% of prescriptions never make it to the pharmacy, that's 25% of the market lost," Dr. Rosenblum says.

All three companies insist that their systems reduce errors from illegibility of prescriptions to dosing, allergies, or contraindications, all of which are double-checked by the systems' software.

Not everyone, however, is in favor of in-office fulfillment, including the National Community Pharmacists Association.

"We are opposed to anything that interferes with the patient-pharmacist relationship," says Douglas Hoey, NCPA's VP for practice affairs. "Our pharmacists have a minimum of six years education in the proper use of drug products. To substitute a vending machine circumvents that relationship."

Mr. Hoey also says even though prescribing information comes with every bottle, "studies have shown that, unfortunately, a large proportion of people are illiterate or functionally illiterate. There is no substitute for that face-to-face conversation with the pharmacist." ♦

PharmaVoice welcomes comments about this article. E-mail us at feedback@pharmalinx.com.

Experts on this topic

DOUGLAS HOEY, VP for practice affairs, National Community Pharmacists Association, Alexandria, Va.: NCPA represents the pharmacist owners, managers, and employees of nearly 25,000 independent community pharmacies across the U.S.

JACK MCCALL, Executive VP, PD-Rx Pharmaceuticals, Oklahoma City, Okla.: PD-Rx Pharmaceuticals provides a complete line of pharmaceuticals, packaging services, software development, and clinical pharmacy consulting services

KEENAN RICHARDSON, M.D. Practicing physician, South Lakes Pediatrics, Minnetonka, Minn.: South Lakes Pediatrics is a pediatric healthcare facility

KEN ROSENBLUM, M.D. Founder and CEO of Mendota Healthcare, Minneapolis, Minn.: Mendota Healthcare developed the InstyMeds prescription dispensing system — the healthcare industry's first fully automated, ATM-style, dispenser of prescription medications