

New microchip watchdog could boost patient compliance

BY LIZ PARKS

OTTAWA, Ontario — In a move that could enhance patient compliance with prescription medication therapy, two firms will test a new blister packaging system that can monitor electronically the date and the time a patient opens a package of medicine and takes out a pill.

The validation tests will be the first to explore Med-ic Electronic Compliance Monitor, a new technology introduced March 31 at Interphex, a large-scale trade show for drug manufacturers. They'll be conducted in several settings this summer and fall, including a substance abuse center and a test to monitor compliance among some 300 HIV patients conducted outside the United States.

At least one pharmaceutical manufacturer also will test the system later this year, said Michael Petersen, chief executive officer for Ottawa-based Information Mediary Corp., the inventor of Med-ic. A test in a pharmacy setting could happen by the end of this year, Peterson added, but he predicted it could take as long as five years for the technology to reach mass adoption.

According to its developer, Med-ic has the potential to help drug companies—and ultimately physicians and pharmacists—understand how well patients are complying with instructions for taking their medications. It does so by embedding an easily readable microchip within blister packs of prescription drugs. Patients who have finished taking the medicine return to their health care providers with the package, and by using a companion scanner and software called CertiScan, the provider reads the microchip and plots out how the patient actually took the medication.

"It gives them a snapshot of how compliant

the patient was with the dosage prescribed," Petersen said. "And it takes the guesswork out of how to continue to treat the patient. It helps the physician or pharmacist understand why a patient is not getting better or why he or she may be getting worse, because they can see whether the medicine was

taken as prescribed or if the patient skipped some dosages or doubled up on dosages."

Shorewood Packaging, a division of International Pa-

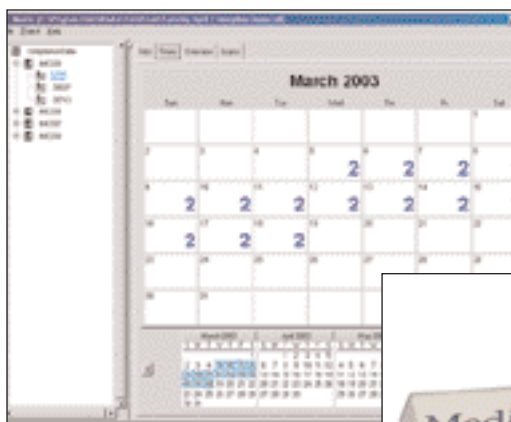
per and a supplier of packaging services to drug makers, currently is the sole supplier of Med-ic enhanced pharmaceutical blister packs and is producing and distributing the packaging being used in the tests.

When a patient using a blister pack enhanced with Med-ic breaks open the foil wrappers in the blister packages, a signal is sent to a microprocessor embedded in the package. That microprocessor, which Petersen said has almost as much computing power as the old IBM AT personal computers that sold for \$10,000 in the 1980s, records the date and time that the pills were expelled.

For a health care professional to access and read the data, the packaging has to be brought back to the health care professional who dispensed it. The health care provider then uses IMC's CertiScan RFID scanner to read the chip and upload the data to his or her personal computer.

According to Petersen, the Med-ic enhanced packaging can be refined further with beeps or a tiny light to alert the patient when it is time to take a pill. And the embedded microproces-

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The Med-ic Electronic Compliance Monitor could help enhance patient care by automatically tracking the day and time that a patient breaks open a blister foil to take prescribed medication.



Chain Pharmacy

As independents regain footing, NCPA firms up its staffing levels

ALEXANDRIA, Va. — Reflecting its growth as the biggest group representing independent pharmacy, the National Community Pharmacists Association has added to its staff and named three new officers.

Among the changes, the organization has hired Nancy Scott, a veteran of the Na-

tional Retail Federation, as vice president in charge of membership services. Scott last served as vice president of industry relations in the NRF's member services division, in addition to heading up NRF's West Coast office.

Prior to that, Scott served in several roles at the Food Marketing Institute, where

she was responsible for member services and recruitment to food store operators throughout the United States and Latin America.

Scott also spent more than six years with Unilever USA's Thomas J. Lipton and Lawry's Foods divisions.

The association also re-

structured its communications department into two areas: public relations and publications. Michael Conlan has been promoted to vice president of communications and will oversee all NCPA publications, including *America's Pharmacist*, where he was managing editor for the past year. Deleisa Johnson, who last served as head of com-

munications, has been named vice president of public relations and will oversee the association's media relations, speech writing and other public outreach activities.

Scott, Conlan and Johnson all report to Bruce Roberts, NCPA executive vice president and chief executive officer.

In other moves, the group has hired Kathie Care, who last worked at the American Society of Civil Engineers as manager and designer of Web. Care reports to Conlan.

Finally, NCPA has named Scott Pace, Pharm.D., associate director of professional affairs. Pace, a 2001 graduate of the University of Arkansas for Medical Sciences College of Pharmacy, last served as NCPA's executive resident in association management. He reports to Douglas Hoey, vice president of professional and practice affairs.

"As NCPA continues to experience exceptional growth, we have found it necessary to add staff and restructure the association to better serve our members," Roberts said.

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sor can be tailored to specific clinical requirements, such as monitoring the temperature, vibration, humidity, radiation, light or shock to which the package might be exposed.

At current production levels, the cost of the integrated chip sounds relatively high, adding up to \$15 per package, while the scanner and software together currently retail for about \$600.

But Petersen asserted that the price tag is relatively cheap to monitor compliance for medications that could retail for hundreds of dollars, as many HIV drugs now do.

"This technology ... is as close as you can get to accurate validation without having someone physically stand over a patient and watch as he or she takes the medication," added Duncan Watson, vice president of marketing and creative services for Shorewood Packaging. In addition, he said: "There is a move for pharmacy chains to put a lot of the bulk pharmaceuticals they carry into blister packs so they can be controlled more accurately. So it makes sense that pharmacies might adopt this technology very quickly once it's been validated."

Petersen said that as production increases, costs for the tags could fall below \$5 within five years.