

# Screening for Prediabetes, Diabetes Pays Off

BY DOUG BRUNK

NEW ORLEANS — The costs of routine screening for prediabetes and unrecognized diabetes appear to be lower than the costs of no screening at all, results from a large analysis suggest.

“Missing a diagnosis of prediabetes or diabetes is expensive, something we tend to overlook,” Dr. Ranee Chatterjee of the department of general internal medicine at Johns Hopkins University, Baltimore, said at the annual scientific sessions of the American Diabetes Association.

In a study led by her associate, Dr. Lawrence S. Phillips, professor of medicine at Emory University, Atlanta, researchers screened 1,259 adult volunteers not known to have diabetes who participated in the Screening for Impaired Glucose Tolerance study. The adults underwent four screening tests: a random plasma and capillary glucose test and a second random plasma and capillary glu-

cose test 1 hour after a 50-g oral glucose challenge test, followed by a definitive 75-g oral glucose tolerance test performed in the morning after an overnight fast.

The researchers drew from previous studies and from the Diabetes Prevention Program to evaluate costs over a 3-year period from a health system perspective and from a societal perspective. The health system perspective included direct medical costs associated with testing, including lab costs, follow-up, the costs of treating true positives, and costs that might be incurred by allowing medical conditions or false negatives to progress over a 3-year period.

Societal costs included the time required for the patient to undergo screen-

ing and treatment, as well as the loss of productivity that would result from treatment or from allowing those medical conditions to progress.

Dr. Chatterjee reported that 24% of the adults screened had either prediabetes or diabetes, and areas under receiver operating characteristic curves ranged from 0.64 for the rapid capillary glucose test to 0.82 for the 50-g oral glucose challenge test. After applying 70% specificity screening cutoffs, Medicare costs for testing, costs for generic metformin, and 10% false-negative estimates, the researchers projected that health system costs for each screening test over a 3-year period ranged from about \$180,000 to \$186,000. These were all lower than the es-

timated costs for no screening, which were about \$206,000.

The random plasma glucose test was the least costly, but Dr. Chatterjee said that the most practical screening test to consider in this patient population may be the 50-g oral glucose challenge test, “which can be done any time of the day, does not require fasting, and could be done opportunistically during a clinical visit. It should be considered as a convenient, cost-effective method for screening adults for prediabetes and diabetes.”

Study limitations included the fact that the participants were volunteers and that the researchers used a single glucose tolerance test as their standard rather than two glucose tolerance tests. “But we felt this is what’s done in gestational diabetes,” Dr. Chatterjee said. “In addition, we concentrated on treatment with metformin because we felt this is more generalizable, but it may not be the best treatment.”

She had no conflicts of interest. ■



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## Deals on Diabetes Drugs Make a Difference

BY MIRIAM E. TUCKER

NEW ORLEANS — Prescription plans offered by large discount stores could save diabetes patients at least \$85 per month in out-of-pocket expenses compared with local chain or independent pharmacies, a cost analysis found.

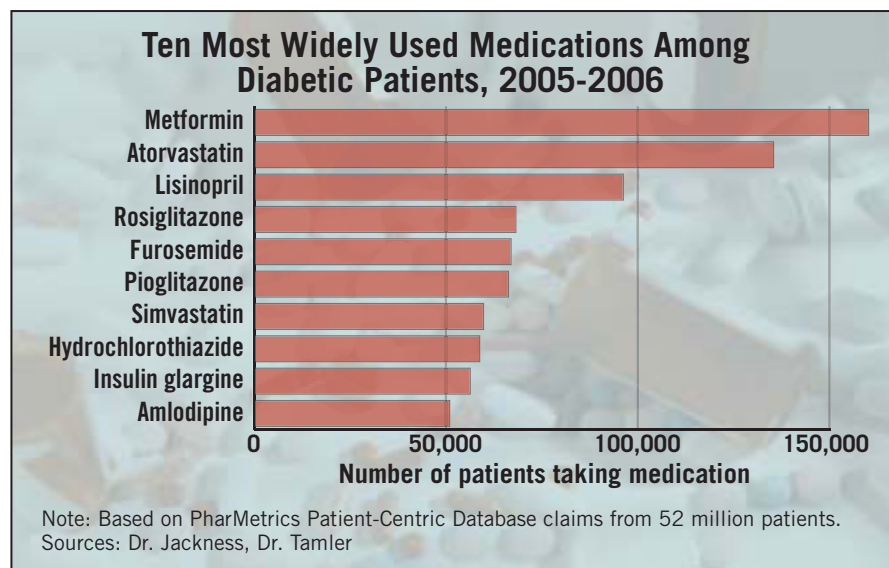
Previous data suggest that one in every five U.S. patients with diabetes cuts back on medications because of cost. Large retail stores such as Wal-Mart, Target, and Kmart have launched programs that offer generic medications at much lower cost to customers than that of other types of pharmacies.

An analysis of medical and pharmaceutical claims from the PharMetrics patient-centric database on 52 million unique insured patients from 91 health plans across the United States confirms that these programs can save patients a significant amount of money out-of-pocket, Dr. Clifton M. Jackness and Dr. Ronald Tamler reported in a poster at the annual scientific sessions of the American Diabetes Association.

“The purpose of our study was to increase physician and patient awareness that there are significant price differences among pharmacies, and that cost is a significant barrier to patient compliance,” Dr. Jackness said in an interview.

“Doctors and patients should work together to find the best pharmacy that serves their needs, and some smaller pharmacies may be able to compete with Wal-Mart’s prices. However, Wal-Mart, Target, and Kmart are full-service pharmacies that answer patient questions, ask about interactions, and keep computerized records on all drugs prescribed through their stores,” added Dr. Jackness, an internist at Mount Sinai School of Medicine, New York.

He and Dr. Tamler, an endocrinologist at Mount Sinai, analyzed claims for the 10



most commonly prescribed medications for all adults younger than age 65 years with a diagnosis of diabetes (ICD-9 code 250) prior to Jan. 1, 2005. (See box.) Rosiglitazone is prescribed less often today, so it was removed and #11, atenolol (47,070 patients) was included in the analysis instead. The average number of medications taken by a patient with diabetes is 8.9, according to the investigators.

Some generic drugs offered by Wal-Mart, Target, and Kmart cost much less than the same drugs sold by other pharmacies, while other medications were similar in price. On the price of nongeneric medications, those three discounters, www.drugstore.com, and Medco by Mail seemed to be more competitive than the neighborhood retailer and chains. For example, the 30-day out-of-pocket cost for generic metformin (500 mg) ranged from \$4.00 at both Wal-Mart and Target to \$39.99 at Rite-Aid. For lisinopril (10 mg), the range was again \$4.00 at the same two big retailers to \$36.95 at a local pharmacy.

On the other hand, atorvastatin (10 mg)—not available generically as of Au-

gust 2008—was expensive just about everywhere, ranging from Wal-Mart’s low of \$71.63 to a high of \$107.10 at drugstore.com, not including shipping and handling costs. But added up, the price of all 10 medications was lowest at Medco by Mail (\$428.35), not including shipping and handling. Next lowest was Wal-Mart (\$432.53), while the highest was a local pharmacy (\$639.30), a difference of more than \$200 per month.

The superstores and mail-order firms did not always have the lowest price for every medication, but a patient who bought all 10 prescriptions at one of these stores would save a minimum of \$85 per month compared with the local chain or independent pharmacy, neither of which had the lowest price for any of the medications included in the analysis, Dr. Jackness and Dr. Tamler said.

Neither Dr. Jackness nor Dr. Tamler had any disclosures or conflicts of interest. The PharMetrics prescribing data came from Eli Lilly & Co. representatives, but they did not request compensation for that database. ■

## Medtronic Diabetes Recalls Infusion Sets

BY MIRIAM E. TUCKER

Medtronic Diabetes is recalling its Quick-set infusion sets that have lot numbers starting with the number 8 and reference numbers MMT-396 through MMT-399.

The “Lot 8” Quick-set infusion sets, used with MiniMed Paradigm insulin pumps, are being recalled because they were manufactured with an added lubricant that was clogging the vents in approximately 2% of the sets from that lot, preventing the insulin pump from venting properly. This could potentially result in too much or too little insulin being delivered and may lead to serious injury or death.

Customers should stop using Lot 8 Quick-set infusion sets right away. Medtronic is providing replacement infusion sets to customers at no additional charge.

Limited quantities of Lot 8 infusion sets have been distributed in the Bahamas, Bermuda, Brazil, Canada, Ecuador, El Salvador, Germany, Kuwait, Mexico, Paraguay, Turkey, and the United Kingdom. In Canada, customers who have received the sets from Medtronic Diabetes will be contacted. Canadian customers who have questions or concerns should call Canada’s customer service line at 1-800-284-4416 for more information.

No other Medtronic infusion sets are affected by this recall. Customers may use any other Paradigm infusion sets they have available and have been trained on (including Quick-sets other than Lot 8, and Silhouette, Sure-T, Sof-set, or Polyfin infusion sets), the company said online. ■