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 glucose 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 screening 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 estimated 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 is done just right 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.

Screening for Prediabetes, Diabetes Pays Off

**Deal on Diabetes Drugs Make a Difference**

**Medtronic Diabetes Recalls Infusion Sets**

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-set other than Lot 8, and Silhouette, Sure-T, So-set, or Polyn infusion sets), the company said online.

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