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## Medication Costs Plunge After Bariatric Surgery

BY MICHELE G. SULLIVAN

NATIONAL HARBOR, MD. — Gastric bypass surgery that corrects hypertension and diabetes can save thousands of dollars in medication costs over a lifetime, according to a retrospective study of more than 100 patients.

Even patients whose diseases improve but do not remit after surgery will see a significant cost benefit in their medications, Dr. Saber Ghiassi said at the annual meeting of the Society of American Gastrointestinal and Endoscopic Surgeons.

He identified the savings in Veterans Af-

Major Finding: The projected lifetime cost of antihypertensive medication dropped from \$1,039 before gastric bypass surgery to \$286 in the 44% of patients whose hypertension had resolved, and from \$1,349 to \$513, respectively, in patients who remained hypertensive.

**Data Source:** A retrospective study of 106 patients.

**Disclosures:** None of the investigators had any potential financial conflicts of interest.

fairs patients who have access to inexpensive medications. Savings would be much greater in the general population, where drug costs are not controlled, he noted.

Dr. Ghiassi, a postdoctoral surgical fellow at Stanford (Calif.) University, reviewed the charts of 106 patients who underwent Roux-en-Y gastric bypass at the VA Palo Alto Health Care System hospital from 2001 to 2007. It is "a unique place to study this issue because computerized patient records allow us to follow many patient factors, such as medications," Dr. Ghiassi said. "Also, all our patients are subject to the same drug pricing."

Dr. Ghiassi and his colleagues compared medication costs at 1 year after surgery with presurgical costs. They calculated lifetime cost savings based on the Centers for Disease Control and Prevention life charts, with adjustments from the Framingham Heart Study survival statistics.

Most (77%) of the patients were men, mean age was 52 years, and mean body mass index was  $47 \, \text{kg/m}^2$ . Hypertension was present in 83%, diabetes in 56%. At 1 year post surgery, the patients had lost a mean of 69% of their excess body weight. Hypertension had resolved in 44%, diabetes in 80%.

For those whose hypertension resolved, the projected lifetime cost of antihypertensive medication dropped significantly from \$1,039 before surgery to \$286 post surgery. For patients whose hypertension improved but did not resolve, the presurgical projected lifetime medication cost of \$1,349 dropped to \$513.

There were no significant differences in age or baseline BMI between the two patient groups, but patients whose hypertension resolved lost significantly more excess body weight than did those

who saw only an improvement in hypertension (76% vs. 62%).

The projected lifetime cost of diabetes medication was \$10,505. For those whose diabetes resolved completely, that cost dropped significantly to \$1,139. Savings were greater in patients whose diabetes improved but did not resolve: The projected lifetime cost of diabetes medication of \$22,427 before surgery dropped to \$5,697 after surgery. There were no sig-

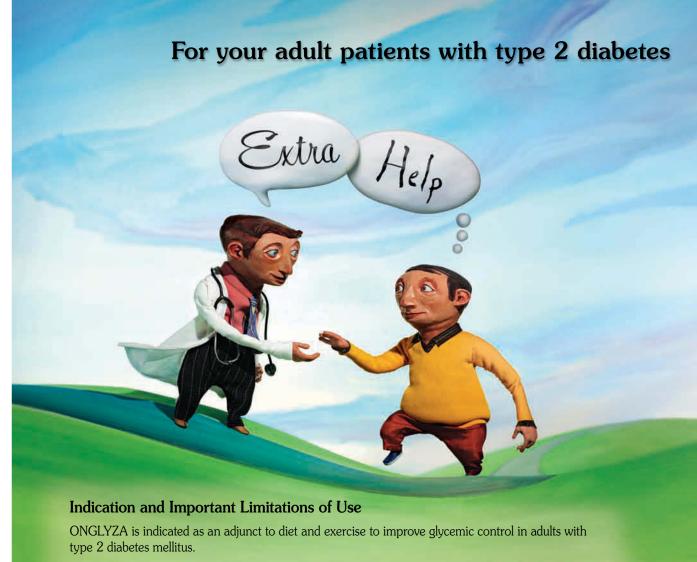
nificant differences in age, BMI, or weight loss between the two groups.

Several discussants commented on the study. Dr. Edward Felix, director of the Advanced Bariatric Center, Fresno, Calif., noted that the lifetime medication costs in the study "are far less than what we would see in just 1 year" of treating hypertension and diabetes in an obese population.

"These are very conservative estimates," Dr. Ghiassi agreed. "The cost

savings in non-VA patients will be much greater because the VA is a government entity that negotiates lower drug prices."

Dr. Phillip Schauer, a bariatric surgeon at the Cleveland Clinic, said similar savings might result with other comorbid disorders, but "the biggest cost savings is probably the reduction in complications of ineffectively treated diseases, like dialysis, coronary bypass surgery, and hip surgery."



ONGLYZA should not be used for the treatment of type 1 diabetes mellitus or diabetic ketoacidosis.

ONGLYZA has not been studied in combination with insulin.

## **Important Safety Information**

- Use with Medications Known to Cause Hypoglycemia: Insulin secretagogues, such as sulfonylureas, cause hypoglycemia. Therefore, a lower dose of the insulin secretagogue may be required to reduce the risk of hypoglycemia when used in combination with ONGLYZA
- Macrovascular Outcomes: There have been no clinical studies establishing conclusive evidence of macrovascular risk reduction with ONGLYZA or any other antidiabetic drug

Most common adverse reactions (regardless of investigator assessment of causality) reported in  $\geq$ 5% of patients treated with ONGLYZA and more commonly than in patients treated with control were upper respiratory tract infection (7.7%, 7.6%), headache (7.5%, 5.2%), nasopharyngitis (6.9%, 4.0%) and urinary tract infection (6.8%, 6.1%). When used as add-on combination therapy with a thiazolidinedione, the incidence of peripheral edema for ONGLYZA 2.5 mg, 5 mg, and placebo was 3.1%, 8.1% and 4.3%, respectively.