HEALTH CARE UTILIZATION AND EXPENDITURES ASSOCIATED WITH USE OF INSULIN GLARGINE

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OBJECTIVES: Long-acting insulin analogs, such as insulin glargine, offer the promise of better glycemic control, reduced risk of complications, and moderation of health care use and costs in patients with diabetes. We studied initiation of insulin glargine to evaluate its association with changes in clinical measures and subsequent health care utilization and expenditures.

METHODS: U.S. Veterans Health Administration (VA) patients who initiated insulin glargine (N = 5,057) in 2001 or 2002 were compared to a sample of diabetes patients continuing to receive other insulin (N = 69,940), matched on month of prescription (index date). Hemoglobin A1c (HgA1c), hypoglycemia rates, and VA health care (inpatient and outpatient) in the 12 months after a patient's index date were compared. Utilization differences were evaluated using Tobit regression and other differences using linear and logistic regression, controlling for prior utilization, demographics, co-morbidities, and diabetes severity. National average utilization and pharmacy costs were used to estimate value of VA expenditures.

RESULTS: Insulin glargine initiators were younger (59 vs. 65 years) than other insulin users with more diabetes complications and more intensive medication management. They had higher HgA1c (8.7% vs. 8.1%) and hypoglycemia rates (11.5% vs. 4.4%) prior to the index date, but greater subsequent reductions (HgA1c: -0.50% vs. -0.24%; hypoglycemia: -5.0% vs. -1.3%). Insulin glargine initiation was associated with 2.4 (95% CI: 1.1–3.7) fewer inpatient days for patients with any hospitalization (lower cost of $820 per initiator). This more than offset the higher costs of more outpatient encounters (1.6 (1.2–1.9) or $229 per initiator) and higher medication costs ($347 ($337–$356) per initiator).

CONCLUSION: Insulin glargine use was associated with improvements in glycemic control, hypoglycemia rates, and utilization expenditures. We conclude that insulin glargine use may improve management of diabetes patients leading to reduced risk of complications and less time in hospital with no net increase in cost.

IMPROVED TREATMENT SATISFACTION IN PATIENTS WITH TYPE-2 DIABETES TREATED WITH EXENATIDE OR INSULIN GLARGINE

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OBJECTIVES: This study compares the effect of two injectable therapies, exenatide and insulin glargine, on quality of life measurements in patients with Type-2 diabetes inadequately controlled on oral antidiabetic medications. Previous research has shown that increasing treatment complexity results in a negative impact on patient reported outcomes. As exenatide and insulin glargine are both adjunctive to pre-existing oral therapy in this study, the impact on quality of life from adding an injectable therapy is examined. Additionally, differences in quality of life between the medications are examined.

METHODS: Patients