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Title

Achievement of Glycemic Control and Antidepressant Medication Use in Comorbid Depression and Type II Diabetes

Priority 1 (Research Category)

Behavioral, psychosocial, and mental illness

Presenters

Jay Brieler, MD, Joanne Salas, MPH, Jeffrey Scherrer, PhD

Abstract

CONTEXT: Limited previous work has suggested that treatment of co-morbid patients with anti-depressant medication (ADM) is associated with improved glycemic control.

OBJECTIVE: To determine the association of ADM treatment on glycemic control at 3 time periods after diagnosis of diabetes.

STUDY DESIGN: Retrospective cohort study.

ANALYSIS: Propensity scores (PS) and inverse probability of treatment weighting (IPTW) controlled for confounding. Extended Cox models measured the association between adequate, inadequate vs. no treatment and glycemic control at 0 to 36 months, 36 to 72 months and ≥ 72 months.

DATASET: Optum[®], a nationally distributed source dataset with a random sample of 5 million patients ≥ 18 years of age, from which we used de-identified data for 2011-2017.

POPULATION STUDIED: Eligible patients aged 18-64 had type 2 diabetes (T2DM) with poor glycemic control, and diagnosis of depression at least one year prior to diagnosis of T2DM. Exclusion criteria included steroid use, HIV, cancer, and inadequate data. 7,332 patients meeting inclusion criteria were identified.

INTERVENTION: ADM treatment (identified by patient prescriptions within the EHR) was defined as adequately treated (≥ 12 weeks of antidepressants), inadequately treated (< 12 weeks) or untreated.

OUTCOME MEASURES: Glycemic control was defined as $A1c < 7.0\%$. Outcome was achievement of glycemic control at 0 to 36 months, 36 to 72 months and ≥ 72 months.

RESULTS: After controlling for confounding, compared to no ADM treatment, adequate ADM treatment was significantly associated with achieving glycemic control within 36 months (HR 1.17, 95% CI 1.02-1.34). No association was observed beyond 36 months. There was no association between inadequate vs. no treatment and glycemic control.

CONCLUSIONS: Receipt of adequate ADM therapy is associated with achieving glycemic control in the first 3 years after a T2DM diagnoses with uncontrolled A1c.