Factors Affecting Sustained Medication Adherence and Its Impact on Health Care Utilization in Patients with Diabetes

Juarez DT\textsuperscript{1}, Tan C, Davis J, Mau M.

Abstract

OBJECTIVE:

To identify factors associated with years of medication adherence and to examine the relationship between years of adherence and health care utilization.

METHODS:

This retrospective analysis used administrative data from adult patients with diabetes enrolled in health plan in Hawaii for four years (n= 23,450 patients). Ordered logistic regression was used to examine factors related to years of medication adherence for three types of medications (anti-diabetic, antihypertensive, lipid-lowering). Multivariable logistic regression and negative binomial regression were used to examine relationship between years of adherence and health care utilization (hospitalizations and emergency department visits).

KEY FINDINGS:

Adherence to any of the medications for all four years was significantly associated with lower odds of a hospitalization or emergency department visit in the third year. The magnitude of reduction in utilization was greater for adherence to anti-diabetic and lipid-lowering medications, at 31% compared to 22% for antihypertensives. The 9% of patients who were adherent to all three types of medications for all four years showed a reduction of 53%.

CONCLUSIONS:

Improvement is needed in medication adherence across all three types of medication. Interventions may need to target younger adults, women, patients with congestive heart failure, Filipinos and Native Hawaiians.

PMCID: PMC3664067 [Available on 2014/6/1]

PMID: 23717343 [PubMed]