

Abstract:

An Evaluation of Provider Continuity In Relation to Diabetic A1c Control

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Purpose: While there is copious research on the benefits of continuity of care on diabetic control, there is minimal data on the role of provider alignment in diabetic outcomes. This study aims to examine the impact of consistent provider alignment on glycemic control in Type II diabetic patients.

Methods: We conducted a multi-site, retrospective cohort study. Patient data was extracted from the thirteen FQHC sites that comprise Erie Family Health Centers, in Chicago, Evanston and Waukegan, Illinois. 4,478 patients met the following inclusion criteria: a) diagnosis of Type II diabetes mellitus (non-pregnant and without active substance misuse disorder) receiving care between 2008 and 2017. Our chart review assessed: a) hemoglobin A1C value at the time the diagnosis of DM was first used as the billing code for an office visit and 36 months after this index visit and b) provider alignment, defined as the number of different medical providers the patients saw for office visits related to diabetes during the 36 months after the DM diagnosis was first associated with an office visit. This study was reviewed by the Northwestern University Institutional Review Board (00210813).

Results: Analysis of covariance (ANCOVA) was conducted to determine whether patients' most recent A1C values are related to provider alignment after controlling for baseline A1C values. The overall model was significant ($F=531.9$, $p<.001$, $r^2=0.33$), however the fixed factor representing provider alignment was not a significant term ($F=2099.79$, $p=0.821$). Baseline A1C was a significant predictor ($F=.306$, $p<.001$, partial eta squared=.323), suggesting a stronger association with final A1C than provider alignment.

Conclusion: Our retrospective review of a cohort of type II DM patients receiving outpatient services at urban FQHCs demonstrated a descriptive relationship between provider continuity and glycemic control, however this association was not statistically significant. More research would be beneficial to refine our understanding of these variables, and to determine not only the impact of provider consistency on hemoglobin A1c but the overall impact on quality of life.