Assessing Factors Driving High Utilization of Inpatient Services in Diabetes Patients

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Introduction. There is a cohort of patients in The University of Kansas Health System (TUKHS) that are high-utilizers of inpatient services due to diabetes-related conditions. The purpose of this project is to identify these patients and qualitatively determine common variables between them. These variables may shed light on factors that cause higher inpatient services utilization and lead to potential interventions to address this issue.

Methods. A retrospective descriptive chart review of high-utilizing patients was conducted. Subjects were stratified into groups of high and low utilization over the previous year, then by normal or elevated most recent HbA1c. High utilization was defined as >3 inpatient hospital discharges within the previous year and elevated HbA1c was defined as >7.0%. Data included number and cause of hospitalizations over the previous year, number of outpatient visits, most recent HbA1c, diagnosed comorbidities, diabetes medication use, and other variables.

Results. Charts were reviewed for 102 low-utilizing and 108 high-utilizing diabetic patients. Regression analyses were performed and showed obstructive sleep apnea (OSA) and being prescribed 10 or more medications have a significant positive association with high inpatient utilization while GLP-1 agonist and statin use have a significant negative association. All statistics are preliminary.

Conclusions. High-utilizing patients are more likely to have OSA, less likely to be prescribed GLP-1 agonists or statins, and more likely to be prescribed 10 or more medications. These findings may guide future interventions to decrease hospitalizations in this cohort.