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Title

How well are caring for our patients with diabetes – moving from tracking processes to measuring outcomes

Priority 1 (Research Category)

Dissemination and implementation research

Presenters

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Abstract

Context: When diabetes is not well-controlled, it can lead to numerous negative sequelae. At present, interventions used to prevent these negative sequelae are tracked, measured, and reported, both in our EHR and nationally, but the outcomes of these interventions are not. Objective: To determine the outcomes of care for our patients with diabetes. Study Design and Analysis: Cross-sectional study calculating incidence and prevalence of diabetes and its associated comorbidities. Setting or Dataset: All JPS patients from January 1, 2010, through February 4, 2022. Population Studied: All JPS patients with a diagnosis of “Diabetes”. Intervention/Instrument: SlicerDicer, a software tool accessible in Epic, was used to find all unique medical record numbers (MRNs) associated with a diagnosis of “Diabetes” from January 1, 2010, through February 24 (first batch of data), 2021, and then again from January 1, 2010 through February 4, 2022 (second batch of data). Outcome Measures: Prevalence and incidence of the various negative sequelae of diabetes in comparison to published averages. Results: From the first batch of data, 93,496 unique MRNs had the diagnosis of “Diabetes”. The prevalence of each comorbidity was as follows: peripheral neuropathy of 33.93%, chronic kidney disease of 20.09%, retinopathy due to diabetes of 10.32%, myocardial infarction of 10.21%, hypoglycemia of 8.07%, stroke of 6.64%, ketoacidosis of 3.28%, amputations of 2.17%, and hyperosmotic hyperketotic syndrome of 0.40%. From the second batch of data, 100,266 unique MRNs had the diagnosis of “Diabetes”, accounting for 6,770 new cases of diabetes to JPS. The incidence and prevalence, respectively, of each comorbidity for that subset of patients was as follows: peripheral neuropathy of 5.11% and 35.13%, chronic kidney disease of 2.24% and 20.55%, retinopathy due to diabetes of 1.04% and 10.56%, myocardial infarction of 0.91% and 10.35%, hypoglycemia of 0.94% and 8.40%, stroke of 0.85% and 7.00%, ketoacidosis of 0.30% and 3.36%, amputations of 0.15% and 2.17%, and hyperosmotic hyperketotic syndrome of 0.03% and 0.41%. Conclusions: At JPS, until present, the incidence and prevalence of the negative sequelae of our patients with diabetes was unknown; therefore, the outcomes of care for our patients with diabetes was unknown. When compared to available information published by the CDC, JPS demonstrates better outcomes for its patients with diabetes compared to the national average.