Diabetes Care Gap Project Altoona Family Physicians 2021

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Introduction

Diabetes is one of the most prevalent diseases in our population affecting a total of 37.3 million Americans, which equates to 11.3% of the population, according to the 2021 CDC statistics. If left untreated, this disease can lead to permanent diabetic retinopathy and ESRD, resulting in possible blindness and need for dialysis, among other detrimental consequences. Due to its multi-organ effect, both management and surveillance of the disease is a complex process, involving multiple specialties and coordination. For this quality initiative, we developed a streamlined workflow to detect several care gaps in the management of our highest risk diabetic patients, specifically those with a hemoglobin A1c (HA1c) >9 or unrecorded value. After reviewing our current dashboard statistics, this encompasses a total of 229 patients at the Altoona Family Physicians practice. In terms of the Five Models of Osteopathic Medicine, our project most applies to the Metabolic Energy domain given the pathophysiology of diabetes.

Methods

A list of patients who meet the HA1c criteria described above was generated and their charts reviewed for the following diabetes care gaps: HA1c within 6 months, lipid panel, urine microalbumin, and diabetic (DM) eye exam all within a year, and a BMP within a year if on an ACE or ARB. Patients not meeting these requirements were then given laboratory orders and/or referrals which were pended and forwarded to their PCP to be signed. The patient was then contacted by office staff regarding these new orders for completion.

Discussion

The care of the patient with diabetes (PWD) has evolved in the past 50 years. Specifically, regular laboratory testing of hemoglobin A1c, lipids, urine microalbumin and basic metabolic panels ensures that the PWD and their medical care team receive the most up to date information on disease management. Although physicians were not directed in specific management of individual patients, our results suggest that workflows to engage at risk patients can improve outcomes. Our data suggests an interdisciplinary team-based approach to address diabetic care gaps can improve the frequency of recommended labs, diabetic (DM) eye exams and glycemic control. The project's greatest gain was in completion of diabetic eye examinations and revealed an encouraging drop in hemoglobin A1c (HbA1c).

We hypothesize that social disparities influence the ability for our office to assist patients with their optimal diabetic care. A total of 73 of patients did not have an updated HA1c despite the lab order being ordered and patient notified. Of these 73 patients, 36% of them were seen by a provider in the office after the lab was ordered and did not have lab work completed, despite the availability of point-of-care HbA1c testing, as evidenced in Figure 4. The team suspects that cost, transportation, and health literacy may be barriers. In support of this hypothesis, we analyzed patient insurance coverage and found 58% of this high-risk group were insured by a Medicaid product.

Further initiatives may be necessary to assist our patients in obtaining optimal diabetic care which include addressing social determinants of health in our patient population and local community. In the future, we hope to continue this project by further addressing health disparities, improving communication with physicians, and increasing utilization of our in-office laboratory.

Data/Results

As shown in Figure 1, we saw the largest improvement in the DM eye exams which increased from 16% to 25%; the other quality metric trends remained relatively unchanged. Figure 2 further supports our encouraging impact on DM eye exams with the percentage of non-overdue exams increasing each month from 14% to 27%. Figure 3 demonstrates our positive effect on reducing the average HA1c across all patients in the study from 11.03% to 9.75%. Figures 4 shows that 26 of the 73 patients (36%) who had a HA1c order placed, but did not attain the lab test, were seen in our office and still did not have the lab test completed.

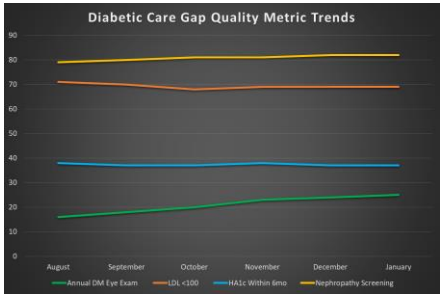

Figure 1

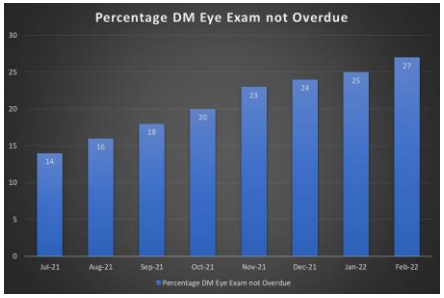

Figure 2

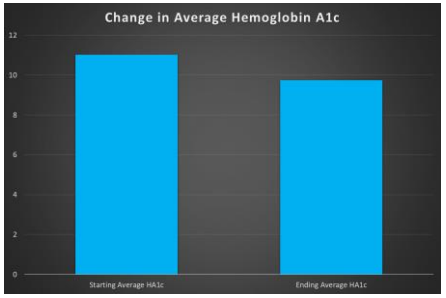

Figure 3

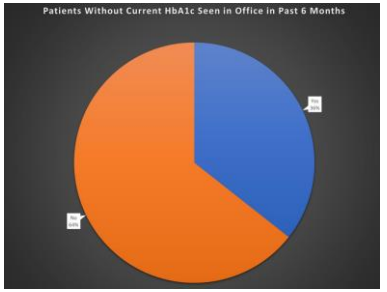

Figure 4

[1]UPMC Altoona Family Physicians
[2]UPMC Altoona Transitional Year Residency Program