

Improving Outpatient Diabetic Management Through HER-based Quality Measure Tracking

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Background

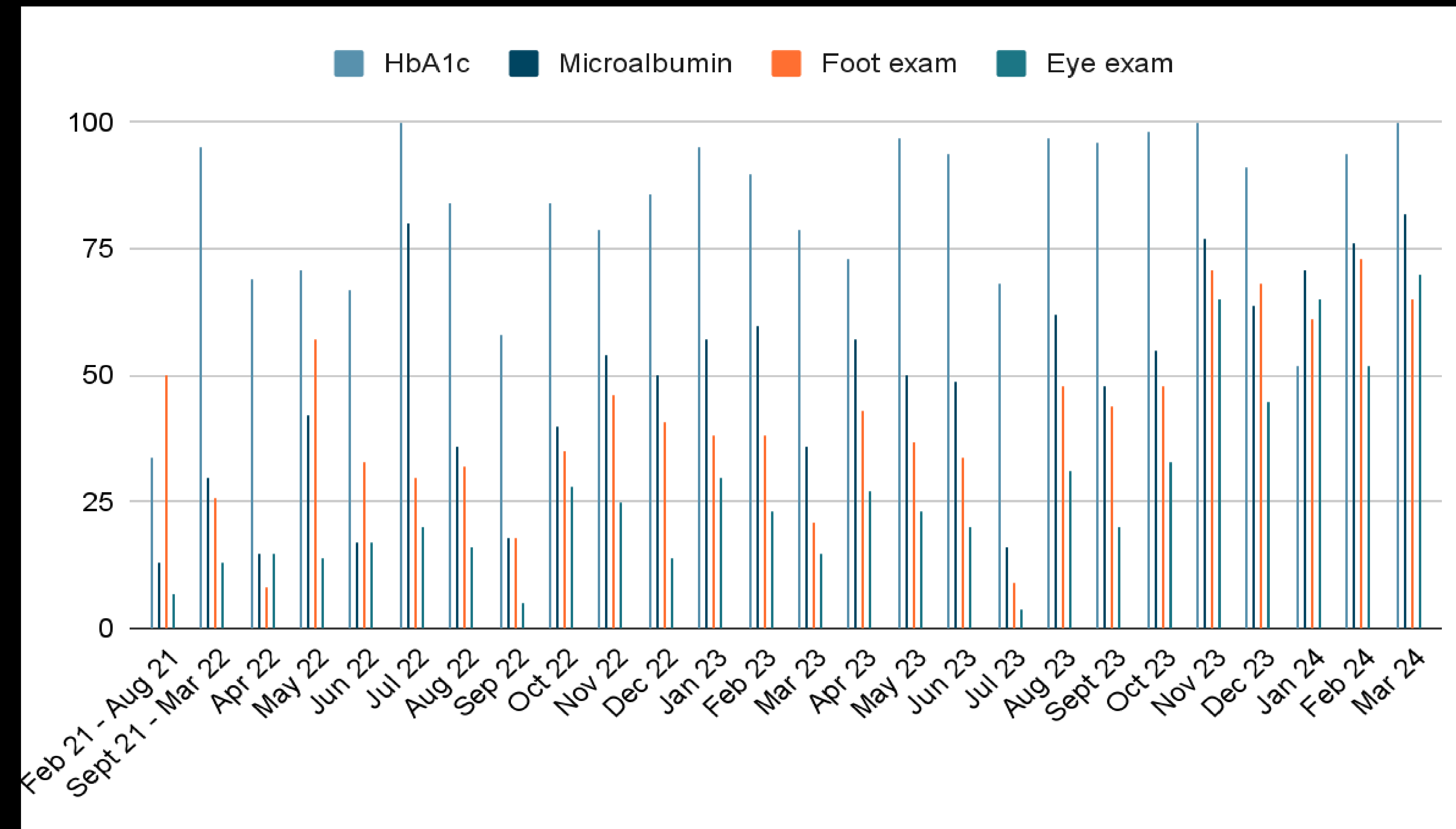
Type 2 diabetes (T2DM) is the 8th leading cause of death in Oklahoma.¹ The manifestations of uncontrolled diabetes are especially detrimental in low income populations and in the indigenous communities. Persistently uncontrolled serum glucose levels can lead to various complications within end organ systems such as the eyes, kidneys, vasculature and nerves. Randomized controlled trials demonstrate that in those with diabetic retinopathy, early treatment can reduce the risk of significant visual loss by 57%.² Likewise, urine microalbumin is known to be a predictor of diabetic nephropathy.³ As a result the Centers for Medicare and Medicaid Services now recommend annual eye exams, diabetic foot exams, and urine microalbumin screenings to help reduce morbidity associated with T2DM.

Aim Statement

The purpose of this project was to increase annual screenings for diabetic complications with HgA1c, diabetic foot exam, eye exam referral, and urine microalbumin in the NHS IM residency clinic. The IM residents set a goal for their diabetic screenings to exceed the national average of IM clinics which is currently 50%.

References

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2. Ting DS, Cheung GC, Wong TY. Diabetic retinopathy: global prevalence, major risk factors, screening practices and public health challenges: a review. *Clin Exp Ophthalmol.* 2016;44(4):260-277. doi:10.1111/ceo.12696
3. Rowe DJ, Dawnay A, Watts GF. Microalbuminuria in diabetes mellitus: review and recommendations for the measurement of albumin in urine. *Ann Clin Biochem.* 1990;27 (Pt 4):297-312. doi:10.1177/000456229002700404



Methods

- Current ADA guidelines were presented to the IM residents.
- Documentation and tracking process were standardized (i.e. dot phrase)
- Residents were instructed on the appropriate use of Cerner *Health Maintenance/Recommendations* tab in order to track annual screenings. Presentations have been repeated annually.
- Clinical IT generated reports on the clinic patients seen each month with a diagnosis of T2DM.
- Reports were manually reviewed to determine the percent of patients each month who had appropriately documented HbA1c, urine microalbumin, monofilament foot exam, and diabetic eye exam using the new *Health Maintenance/Recommendations*
- Data was collected from September 2021 to March 2024.
- Additional measures were made to further remind/encourage residents: the use of posters placed throughout the clinic and posting the names of residents who either remained compliant with updating the maintenance tab and those who did not. This was colloquially termed as the "Wall of Fame/Shame".

Results

This study is ongoing and will continue until we meet our goal of obtaining all 4 screening measures above the national average for 6 consecutive months.

- We have consistently met our goal for the HbA1c, urine microalbumin and diabetic foot exam for the last 5 consecutive months.
- Compliance with eye exam has improved over the past 11 months but not enough to meet our goal.

Discussion

Accurate and trackable data is crucial in following patient outcomes. Previously we used the *Health Maintenance* tab to track diabetic screening exams, however within this past year Cerner EMR has provided a new *Recommendations* tab which enables its users to track parameters for diabetic health screenings. The introduction of this *Recommendations* tab has made it easier to enter in the data as the tab is within the *Provider Workflow*. This was previously a barrier to data entry. There are some factors which have made it difficult to meet our goals. For example, the lack of consistent medical assistants has played a significant role with inadequate preparation for foot exams. Furthermore, notifying physicians more promptly about patient's diabetic status would be beneficial in this process. One solution may also be a dedicated checklist for diabetic screening that is provided by the medical assistants before the physicians enter the exam room. This would assist the physicians in reminding our patients about their ophthalmology referral and retrieve the results of the eye exams. With more collaborative workflow among the clinic staff, streamlining the process of documentation and educating the new interns annually our goal is achievable.

Next Steps/Future Recommendations

- Providing a diabetic checklist to the physician for patients with diabetes.
- Earlier education to future resident physicians regarding how to properly perform diabetic foot examinations, the location and use of disposable monofilament packs, forms for ophthalmology referrals, and appropriate use of the *Recommendations* tab (formerly known as *Health Maintenance*) and pertinent dot phrases.
- More efficient and collaborative division of labor among IM clinic nursing staff and medical aides to notify physicians regarding diabetic patients without documented screening exams

