OPTIMIZING DIABETES MELLITUS CARE AND ADDRESSING SOCIAL DETERMINANTS OF HEALTH: A QUALITY IMPROVEMENT PROJECT

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Introduction

- According to the CDC, diabetes mellitus affects roughly 40 million adults in the U.S.
- Uncontrolled DM is associated with comorbidities including myocardial infarction, hypertension, renal failure, diabetic retinopathy, delayed wound healing, and amputation.
- Patients often face difficulties with social determinants of health (SDOH), which hinders the ability to optimize their diabetic care.
- This study aimed to identify SDOH impacting AFP patients with diabetes, address if AFP patients are up to date on laboratory diagnostic screenings per American Diabetes Association (ADA) guidelines, and incorporate aspects of the Metabolic and Behavioral Osteopathic Models to provide patient centered care.

Methodology

- Patient population included AFP resident PCP patients due for GFR/uACR screening.
- Residents pended orders based on ADA clinical guidelines including HbA1c, renal function (BMP/CMP), urine albumin to creatinine ratio, lipid panel, vitamin B12, and TSH
- We informed the patient's PCP of the pended orders, and patients were called and recommended to obtain ordered lab work.
- Charts reviewed to assess for indications and contraindications for ACEi/ARB therapy.
- Patients screened for SDOH (food insecurity, housing instability, transportation, tobacco and substance use dependency, and access to mental health resources), and social work was consulted to provide resources.

Results

- Of 43 eligible patients, 81.4% had labs ordered, but only 27.9% completed kidney screening labs.
- ACEi/ARB utilization was 72.1%.
- SDOH burden was high (88.4% with ≥1 documented barrier).
- Patients with SDOH barriers had significantly higher HbA1c levels (7.38 vs 6.34; p = 0.031).
- Lab completion was lower among patients with SDOH barriers (26.3% vs 40.0%), though this difference was not statistically significant (Fisher's exact p = 0.608).

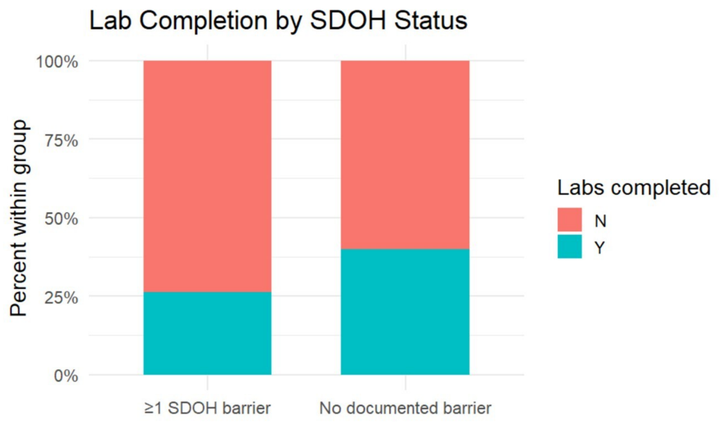

Figure 1. Lab Completion by SDOH Status
Within-group proportions shown; Fisher's exact test p = 0.608.

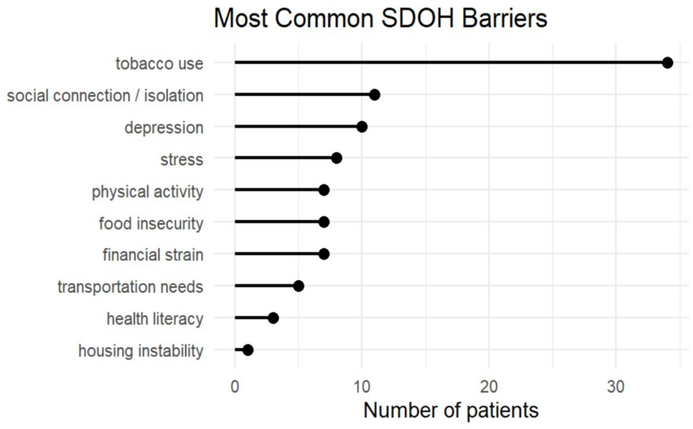

Figure 2. Most Common SDOH Barriers
Barriers derived from structured SDOH documentation and harmonized for reporting.

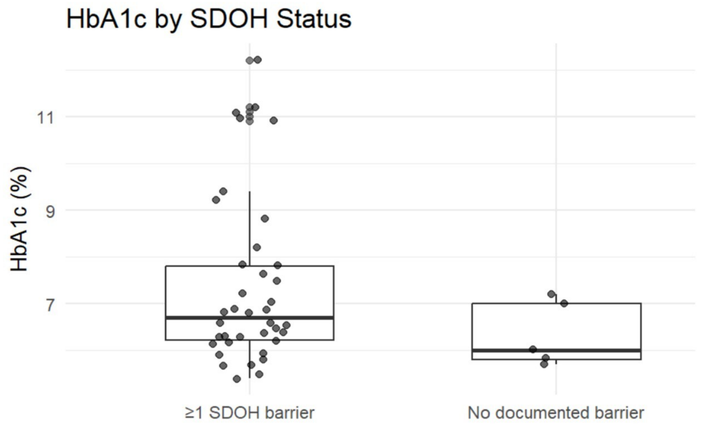

Figure 3. HbA1c by SDOH Status
Mean HbA1c significantly higher among patients with ≥1 SDOH barrier (p = 0.031).

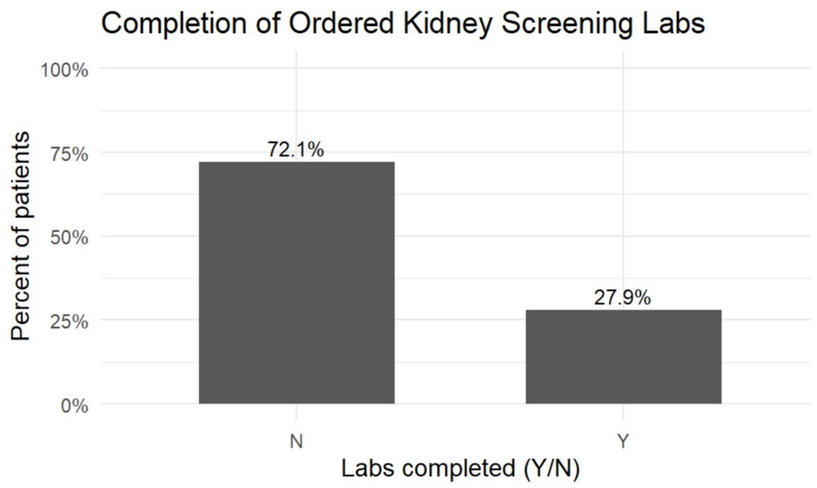

Figure 4. Completion of Ordered Kidney Screening Labs (uACR/eGFR)
Proportions reflect documented lab completion within the defined study period.

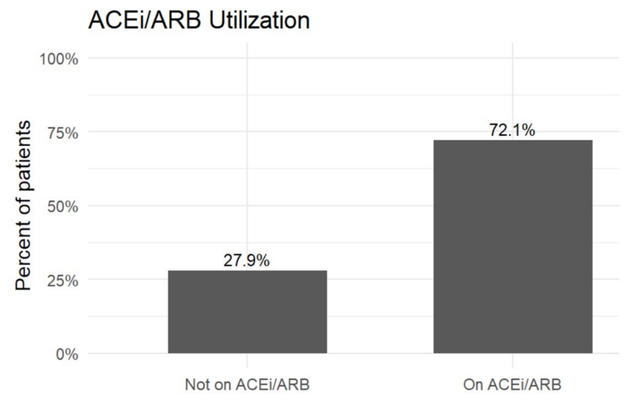

Figure 5. ACEi/ARB Utilization
Medication presence documented in the electronic health record at time of review.

Conclusion

- Through a multidisciplinary team approach, we identified and addressed SDOH and observed trends in AFP patients with diabetes to optimize their diabetic care.
- SDOH barriers can complicate care for patients with diabetes, as seen by the lower lab completion rate and higher average A1c.
- Efforts to reduce these barriers with social work consults may improve treatment of this condition and prevent further sequelae of diabetes by ensuring that recommended screening is completed.