A Spoonful of Knowledge Helps the A1c Go Down: Assessing Diabetic education strategies for optimizing diabetic control.

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Introduction

- Approximately 38.4 million US adults are affected by diabetes.
- Diabetes is associated with a wide range of acute and chronic complications, including coronary heart disease, stroke, nephropathy, all of which contribute to increase morbidly. mortality, and healthcare cost.
- Improving diabetes care gap closure rates may play a critical role in reducing complications and optimizing long term patient outcomes.

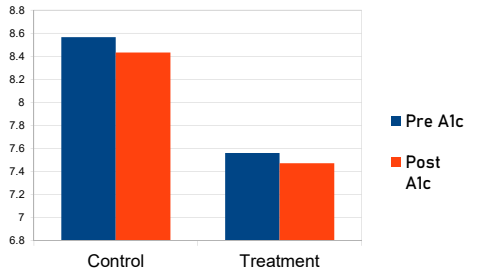
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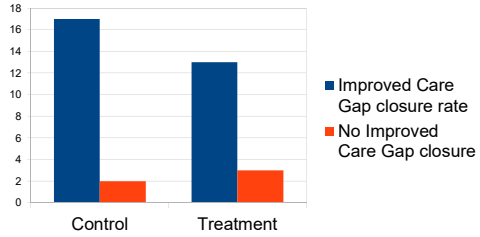
This study aims to improve the completion rate of diabetic care gaps by at least 25%, compared to standard care, over a 6 month period (A1c, lipid panel, retinopathy screening, foot exam, protein screening, and eGFR) in adult patients with type 2 diabetes mellitus through implementation of a care gap tracking card.

Methods

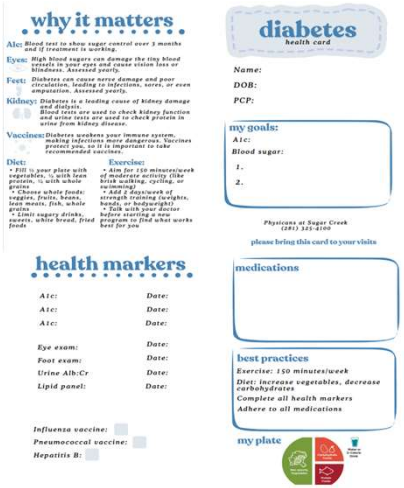
- Eligible study patients were identified with the following criteria
  - Adults ≥ 18 years old
  - A1c ≥ 6.5%
  - At least one care gap not completed within the last year (A1c, lipid panel, retinopathy screening, foot exam, protein screening, and eGFR)
- Participants were randomly assigned to the treatment group, who received cards, or the control group, who did not receive cards, based on an even or odd MRN number.
- Patients in the treatment group were given a diabetic education card, which noted care gaps and diet/exercise recommendations.
- A1c and number of care gaps were compared at baseline appointment and 3 month follow up visit.

Results





- 16 patients were randomly assigned to the treatment group and 19 patients were randomly assigned to the control group
- Due to follow up, only 10 patients in the treatment group and 18 patients in the control group were able to complete an end-of-study A1c
- An uneven two sided t-test showed that the difference in A1c change was not statistically significant (p=0.904).
- Diabetes care gap closure rates were 81.3% in the intervention group and 89.5% in the control group, representing a 8.2% lower closure rate in the intervention group
- A Chi-Square test showed that the difference in number of care gaps completed was not statistically significant (p=0.207).



Conclusions

- The diabetic care gap tracking card did not improve care gap closure rates by 25% or more when compared to standard treatment. The results show the care gap closure rate was not statistically significant.
- The diabetes care gap tracking card system did not demonstrate statistically significant improvement in A1c reduction or care gap closure rates during the study period.
- The control group demonstrated numerically higher rates of A1c reduction compared with the intervention group; however, this was not statistically significant.
- Future quality improvement efforts should include larger sample sizes, extended observation periods, and refine implementation strategies.