Improving Glycemic Control and Patient Follow Up in an Uncontrolled Diabetic Population at Jefferson Hospital Ambulatory Practice

Jennifer Hong MD, Kamal Amer MD, Sean Clark-Garvey MD, Rachel Redfield MD, Timothy Colangelo MD, Roshni Patel PharmD, Albert Lee MD

Department of Medicine, Thomas Jefferson University, Philadelphia, PA. Jefferson Hospital Ambulatory Practice

BACKGROUND

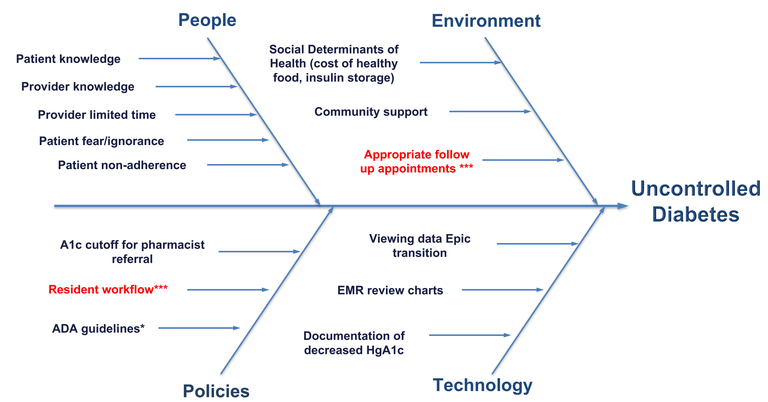
- Diabetes is a prevalent chronic health issue that leads to morbidity and mortality in our patient population at Jefferson Hospital Ambulatory Practice (JHAP).
- 30.3 million people in the US are living with diabetes mellitus. Diabetes was the 7th leading cause of death in the US in 2015.
- The percentage of our patient population at JHAP with uncontrolled diabetes is high with a rate that approaches 40%.
- The percentage of our patients with diabetes that had a follow up appointment scheduled was strikingly low at 20%.
- Follow up and compliance has been a significant deterrent to optimal diabetes management at our practice and are the main issues we attempted to address.
- We targeted patients with uncontrolled diabetes, defined as A1C > 9% or those without an A1c result in the last year, in accordance with our institutional goals.

AIM

- Increase percentage of scheduled follow up appointments in our diabetic population by 50% within 8 months.
- Decrease percentage of uncontrolled diabetics by 10% within 8 months.

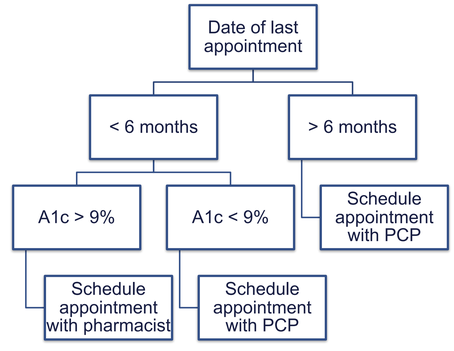
INTERVENTION

Figure 1



- Our interventions were completed between 7/2018-2/2019.
- Our primary intervention was for the MAs to call all diabetic patients and schedule an appointment based on the algorithm below (Figure 2).
- Our secondary intervention was for uncontrolled diabetics to complete a comprehensive diabetes care visit with our pharmacist including medication review, medication titration, and follow up planning.

Figure 2 **MA Appointment Scheduling Algorithm**



RESULTS

Figure 3

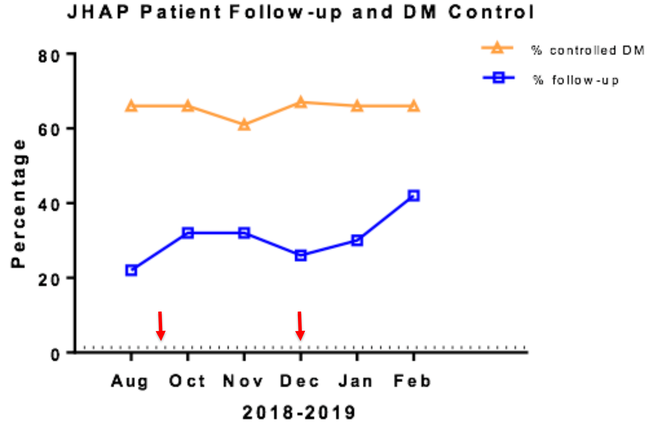


Table 1 **Pharmacist Intervention**

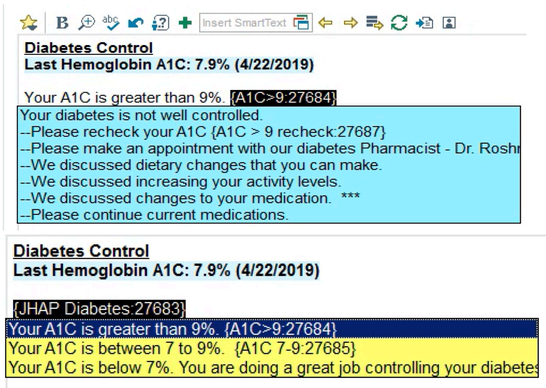
	Pre-QI Interval (3/1/18 –8/31/18)	QI Interval (9/1/18 – 3/6/19)
Total Number of Patients seen by PharmD	30	34
A1c decreased during interval	14 (46.7%)	16 (47.1%)
A1c increased during interval	3 (10%)	5 (14.7%)
Due for A1c	7 (23.3%)	7 (20.6%)
Not yet due for A1c	6 (20%)	5 (14.7%)
Deceased	---	1 (2.9%)
Referred to PharmD but no-showed	13	8

DISCUSSION

- We successfully doubled the percentage of follow-up appointments scheduled for patients with uncontrolled diabetes (Figure 3).
- We attribute our percent increase in follow-up success to the medical assistants who called all diabetic patients to schedule appointments
- Despite the increase in appointments there was no increase in percentage of patients with controlled HbA1C (Figure 3).
- While we were able to improve HbA1C control for some patients, others had worsening glycemic control, resulting in no overall improvement in our sample.
- Using a small random sample size, the average change in A1C after 2 visits was 0.4%, meaning we did not significantly improve glycemic control.
- Patients who completed a follow-up with the pharmacist showed a 2.9% decrease in A1C (Table 1).

FUTURE DIRECTIONS

- Use an Epic smartphrase to provide a uniform way for providers to document glycemic control and management.



- We believe if the clinic can can maintain this increase in follow-up appointments for all our diabetic patients for one year, the A1C will trend downwards.
- Consider having a dedicated diabetes focused case manager or MA in the clinic to organize the monthly phone calls to all diabetic patients without follow-up.
- Continue to make follow-up with pharmacist a priority for all patients with uncontrolled diabetes.

References

1. Centers for Disease Control and Prevention. 2017 National Diabetes Fact Sheet