



# Impact of Patient Aligned Care Team Pharmacy Services on Diabetes Treatment Goals

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## Background

- The VA model of primary care is the Patient Aligned Care Team (PACT), based on the concept of the patient-centered medical home.
- PACT promotes the delivery of coordinated care that is team-based and patient-centered.<sup>1</sup>
- Clinical pharmacy specialists (CPS) provide comprehensive medication management using a scope of practice for patients within the PACT model.
- At the Harry S. Truman Memorial Veterans' Hospital (Truman VA), three PACT CPS provide services for ten PACT teams and currently manage patients with diabetes and hypertension. However, the majority of PACT teams do not have CPS available.
- The purpose of this quality improvement study was to understand the impact of the PACT CPS services on diabetes treatment goals compared to usual care.

## Endpoints

### Co-Primary Endpoint

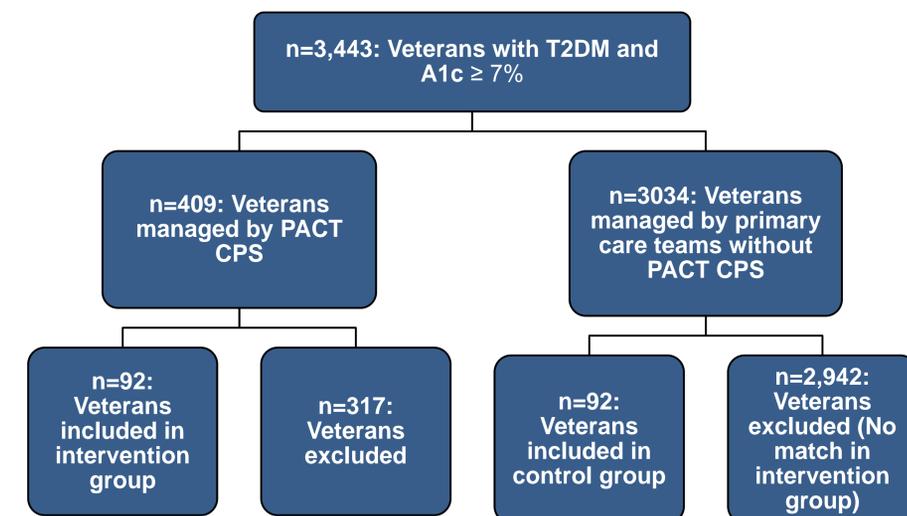
- The mean change in hemoglobin A1c at three and six months for patients managed by the PACT CPS versus patients managed by primary care teams without CPS.

### Secondary Endpoints

- Quantify the number of patients who achieved their respective A1c goal.<sup>2</sup>
- Quantify the number of encounters with each provider and a description of the clinical interventions.

## Methods

- Study Design:** Retrospective cohort quality improvement study
- Study period:** Fiscal year 2019 (October 1, 2018 – September 30, 2020)
- Inclusion criteria:** Veterans at the Truman VA with Type II Diabetes Mellitus (T2DM) and a baseline A1c  $\geq$  7%. Veterans in the intervention group were included if they were managed by the PACT CPS for T2DM and the initial visit occurred within the study period. Veterans in the control group were included if they were managed by primary care teams without CPS, with or without endocrinology, for T2DM within the study period.
- Exclusion criteria:** Veterans who died during the study period or did not have a repeat A1c at least 90 days from baseline.
- Matching:** Patients in the intervention and control groups were matched based on baseline A1c, age and sex.
- Statistical analysis:** Change in A1c was analyzed using a repeated measures ANOVA test. The treatment groups were assessed for similarity using a two-sample t-test with equal variances.

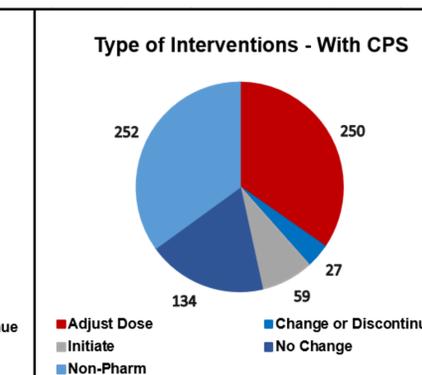
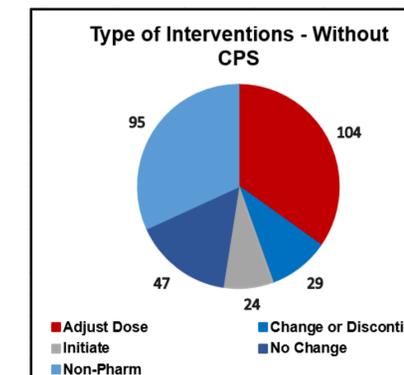
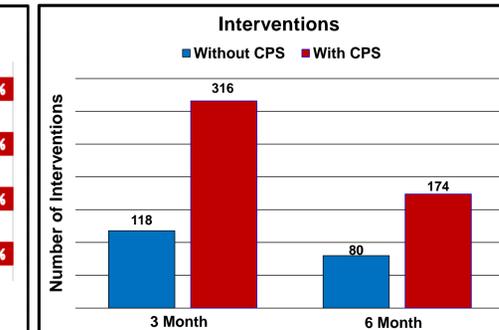
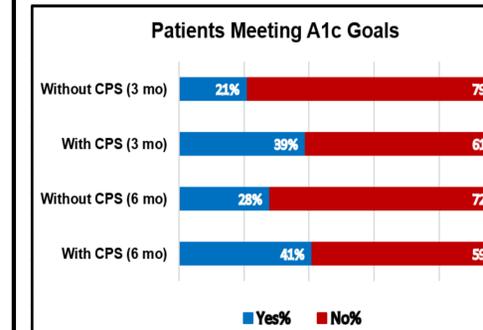
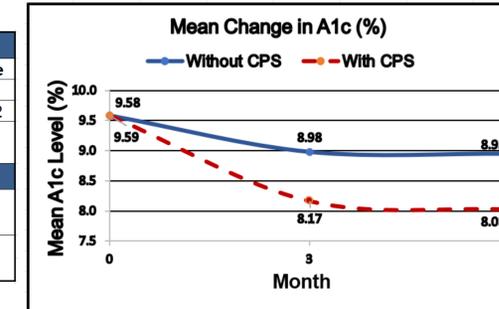


## Results

Demographics			
Parameter	Without CPS	With CPS	p-value
Baseline A1c	Range: 7.1-16.6%	Range: 7-14.7%	0.977
Age	Range: 38-89 years	Range: 33-95 years	0.6692
Sex	Males: 87	Males: 87	0
	Females: 5	Females: 5	

Results of Co-Primary Endpoint		
Month	Mean Difference in A1c	p-value
3	-0.83%	0.0034
6	-0.93%	



## Conclusions

- Veterans with T2DM at the Truman VA, who were managed by PACT CPS, experienced greater A1c reduction at three and six months than Veterans on primary care teams without CPS.
- Veterans in the PACT CPS group met their A1c targets more frequently than those on primary care teams without CPS.
- The PACT CPS had more patient encounters and interventions than primary care teams without CPS.
- Limitations: Quality improvement results are not generalizable outside the Truman VA, lab results were not available for all patients, retrospective analysis establishes correlation and not causation.

## References

- US Department of Veterans Affairs. Patient Care Services. Available at: [patientcare.va.gov/primarycare/pact.asp](http://patientcare.va.gov/primarycare/pact.asp). Accessed: April 14, 2020.
- Department of Veterans Affairs-Department of Defense. VA/DoD clinical practice guideline for the management of type 2 diabetes mellitus in primary care. Available at: [healthquality.va.gov](http://healthquality.va.gov). 2017.

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- This project was reviewed by the University of Missouri Institutional Review Board, Truman VA Privacy Officer, Truman VA Information Security Officer, and was determined to meet guidelines for quality improvement.
- The contents of this presentation represent the views of the project managers and do not represent the views of the Department of Veterans Affairs or the United States Government.
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Angelou Song and Barbara Kasper: Nothing to disclose