

Title: Impact of Pharmacist-Led Point of Care Testing in a Medically Underserved Patient Population

Authors: Staci Cummings, PharmD candidate 2021, Garrett Shobe, PharmD candidate 2021, Heather Lyons-Burney, PharmD

Objective: Discuss the impact of pharmacist-led point-of-care testing in managing diabetes and hyperlipidemia in a medically underserved patient population.

Background

Uninsured patients, between ages 18-65, have the highest risk for developing uncontrolled chronic health conditions such as diabetes and hyperlipidemia. Barriers such as poverty, transportation, and poor health literacy are preventing patients who live in medically underserved areas from access to primary care.

Faith Community Health (FCH) clinic is a charitable, nonprofit primary care clinic located in southwest Missouri, providing access to care annually for approximately 1,200 medically underserved patients. FCH provides comprehensive and holistic care with affordable access through a sliding scale fee structure. Recognizing the need to maximize the patient care visits, FCH utilizes a pharmacist-led program of point-of-care testing (POCT) for screening and monitoring of chronic disease. POCT is a cost-effective alternative for charitable clinics that delivers lab results in 5-10 minutes, provides a quick time-to-treat, requires no transportation, and minimizes follow up phone calls or appointments to review patient labs. POCT allows providers and pharmacists to immediately determine appropriate therapeutic options and provide disease management education to improve patient's health goals. FCH is able to provide patients with most of their medications through partnerships with organizations such as the Dispensary of Hope, Direct Relief, manufacturer prescription assistance programs, and other resources.

Methods

Hemoglobin A1C testing utilized the Bayer A1C Now® POCT device for the first quarter of 2020, and the DCA Analyzer® POCT device for the remainder of 2020. Lipid panels performed on the Cholestech® POCT device obtained total cholesterol, LDL, HDL, and triglyceride values. A urine microalbumin creatinine POCT strip test utilized the Siemens Clinitek® device to calculate values. Lab values were recorded at the time of service and manually entered into a secured database as well as the patient's electronic medical record. This was a retrospective single-center cohort study. Primary endpoint was the number of clinically indicated POCT's and change in Hemoglobin A1C.

Results

This study included 221 patients who received POCT at Faith Community Health Clinic from January 1, 2020 to December 31, 2020. In this study, 40 patients received A1C POCT every 3 to 6 months, with an average total reduction in A1C of 0.29% resulting in an average A1C of 7.92% in these patients. A total of 392 POCT were conducted in 221 patients over the course of the year; 234 A1C, 99 lipid panels, and 58 urine microalbumin. A total of 98 patients received ≥ 2 POCT at a single appointment, 82 patients received 2 POCT over study timeframe, and 16 patients received 3 POCT at one visit.

Conclusion

Based on these results, implementing pharmacist-led POCT has demonstrated a reduction in A1C values as well as allowed patients to receive clinically indicated POCT to screen and manage diabetes and hyperlipidemia. As future endpoints, we are assessing the impact of POCT results on time to treat with clinically indicated medication therapies.