



RXCAREPATH

Connect Care Cure

ABSTRACT CASE STUDY

RX CarePath Clinical Outcome Report 2021

Pharmacist led chronic care management services

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Background: Approximately 4 in 10 adults in the United States have two or more chronic diseases, including heart disease, cancer, chronic lung disease, stroke, Alzheimer’s disease, diabetes, and chronic kidney disease.¹ Chronic diseases are the leading cause of death and disability among American men and women and are leading drivers of the Nation’s \$3.8 trillion in annual health care costs.¹ The purpose of this study was to evaluate the impact of pharmacist-led chronic care management services on health outcomes in patients receiving treatment under a primary care physician.

Patients and methods: A total of 38 patients were included in the study, with 35 patients (24 female, 11 male) being eligible for inclusion in the data analysis. The average age among patients was 75 years-old and the average time for follow-up under pharmacist-led services was 242 days (approximately 8 months). Data collection occurred over approximately a one-year period. Relevant vitals and labs, including A1c, GFR, blood pressure, triglycerides, and LDL levels, were collected at baseline and upon successive office visits, with the most recent parameter values obtained in March of 2022.

Results: Of the 28 patients receiving chronic diabetes management, a baseline A1C $\geq 5.6\%$, $\geq 7\%$, and $\geq 8\%$ were observed in 22, 9, and 6 patients, respectively. At the data cutoff point of January 1, 2022, patients with baseline A1C values of at least 8% or greater experienced the largest overall reduction in A1C (0.60%), followed by those with A1C values of 7% or greater and greater than 5.6% experiencing reductions of 0.40% and 0.10%, respectively. Among the 32 patients who received chronic kidney disease (CKD) management, approximately 94% (n = 30) experienced improvements in their glomerular filtration rate (GFR). Patients who had a baseline GFR less than 60 mL/min showed the greatest improvement (GFR improved by an average of 6.1 mL/min). By the end of data collection (January 1, 2022) the number of patients with a GFR < 60 mL/min declined from 13 patients to 9 patients. A total of 16 patients received hypertension management services, of these, 11 patients had a baseline systolic blood pressure (SBP) of 120 mmHg or greater, 8 had an SBP ≥ 130 mmHg, and 6 had an SBP ≥ 140 mmHg. The greatest

improvement in SBP was observed among the latter of these patient groups (baseline SBP \geq 140) with an average decrease of 29 mmHg (improvement of 158 mmHg to 129 mm Hg). Additionally, at the data collection cutoff, 7 patients demonstrated an SBP below 120 mmHg. A total of 26 patients underwent lipid management, 13 of which had a baseline LDL $>$ 70 (average LDL = 104), while 8 had an LDL $>$ 100 (average LDL = 122). Results demonstrated an average decline in LDL of 11.0 and 12.9 in patients with an LDL greater than 70 and 100, respectively.

Conclusion: Data from this study indicate that pharmacist-led chronic care management services result in the improvement of clinical monitoring parameters used to monitor chronic disease states, such as diabetes, CKD, hypertension, and hyperlipidemia. Improvements in these clinical parameters have been shown to correlate with an improvement of outcomes for these patients. These findings support the use and implementation of pharmacist-led chronic disease management services and warrant further studies investigating correlating long-term outcomes among these patients as well as associated decreases in healthcare related costs and burdens that could result with improved care and disease state management from pharmacist-led services.

References

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