Wanda Health
Engaging Virtual Care

The Effect of Artificial Intelligence Driven Telehealth Intervention on Patients with CHF in Home Health Care.

ABSTRACT

BACKGROUND: Adults with a Congestive Heart Failure (CHF) diagnosis are heavy utilizers of care services for a variety of reasons including not following their treatment plan. The objective of this study is to examine whether an active artificial intelligence driven telehealth intervention improves patients' associated health outcomes and the cost of providing care for patients care in home- based care programs as compared to the standard care pathway.

METHOD: A six-month comparative intervention study of 468 patients having CHF as their primary diagnosis was conducted. This treatment plan for this cohort was delivered by a home health provider with Medicare as the payer; under the home health benefit. The study, fielded between October 2017 and March 2018, compared the results of a patient cohort that was randomly assigned to the Wanda Health intervention and those patients that were following the standard care pathway for CHF used by the provider inclusive of multiple skilled and non-skilled discipline home visits; there was no telehealth as part of this pathway. The Wanda Health intervention was randomly assigned to 20% of the 468 patients. Patients and nurses involved in the study were provided with training on using the Wanda Health intervention. Patients in this cohort were supplied with biometric health monitoring devices for collecting weight, blood pressure, heart rate, and peripheral capillary oxygen saturation.

RESULTS: Prior to engaging this study, this CHF patient cohort had a 34% avoidable 30-day readmission rate making them among the highest for this home health provider. The Wanda Health intervention cohort reduced their avoidable 30-day readmission rate to 18.6%. The non-Wanda intervention cohort experienced a slight increase in their avoidable 30-day readmission rate to 34.6%.

The savings attributed to the Wanda Health intervention keeping more patients from having avoidable readmission during this study was $350,000 based on the cost models used by the provider for CHF patients. Further analysis concluded that if the Wanda Health Intervention had been applied to the entire 468 CHF patients in the study, the total amount of the cost savings was estimated to be $943,000. While there were other savings recognized through improvement in workflow efficiencies, those were not evaluated as part of this study.

CONCLUSION: The use of an artificial Intelligence driven telehealth intervention when combined with CHF pathways can help a provider attain significant improvements in quality, and associated patient compliance, and substantially reduce the costs of care.