Honeywell | Connected Care

Expanding a Telehealth Program to Serve More Patients

> **"There is an increasing emphasis on improving outcomes and reducing costs by finding more innovative ways to deliver care. Early on we realized that this program allowed us to do just that – deliver great outcomes while reducing costs. And patients love it, they really do. To be frank, it's truly been a very successful program. We feel strongly that we could achieve similar outcomes with other populations. So, that has been a key driver for us in moving forward."**

Lynnell Hornbeck
Multicare Health System

Case Study

The 30-day readmission rate for MultiCare patients with heart failure who participated in a telemonitoring program went from 16 percent in 2014 to 5.1 percent in 2015 to just 3 percent in 2016. Results like this must be celebrated.

The Needs

MultiCare Health System, a non-profit integrated healthcare system based in Tacoma, Wash. is looking to expand upon the success that they have experienced since implementing new telemonitoring and video conferencing capabilities from Honeywell Life Care Solutions beginning in 2015. Since starting the program, heart failure and chronic obstructive pulmonary disease (COPD) home health patients have used tablets to collect and transmit biometric data wirelessly to Honeywell's clinical monitoring software, LifeStream, providing a single consolidated view of patient information that enables care providers to make informed, data-driven decisions. In addition, nurses and doctors are using tablets to conduct video visits with patients in their homes.

More is sometimes better

MultiCare is now in the throes of a major initiative that promises to expand its telehealth program from serving about 100 patients to more than 500.

"We're getting ready to launch a major change in our healthcare delivery model, which takes the successes that we have had with our telehealth program and expands it to all of our medical management patients in our home health department," Hornbeck explained. "Up until now it's been really focused on heart failure patients and COPD. We're now going to take and expand that to basically all medical diagnoses. So, we are in the process of adding patients with diabetes, cancer, and stroke to our telehealth population."

Through the expansion of this innovative telehealth program, MultiCare is looking to reduce costs by offering high quality care in a more efficient manner as virtual visits will take the place of in home appointments. In fact, with this model in place, MultiCare expects to enable home health case managers to double their average case load, moving from 30 to about 70 patients. In addition, MultiCare is looking to improve care outcomes by offering patients the opportunity for clinicians and patients to routinely collaborate on clinical care issues by providing telemonitoring to interact with patients on a very personal level.

The challenge, however, rests in developing the program in a purposeful manner that will make it possible to achieve these goals. MultiCare leaders are embracing the following strategies as they expand the initiative:

Latching on to structure. To meet the needs of a large number of patients, MultiCare is offering a two-tiered telehealth program. "Tier one will be a full-blown program. These patients will have the telehealth monitor with all the peripheral devices in the home. They will get all of the intensive interventions that we can provide. We expect about 300 to 350 of the 500 patients will be enrolled in this tier one program," said Kelly Gariando, RN, telehealth specialist at MultiCare.

When enrolled in the second tier or "coaching model," patients will use their own devices to transmit vital information to the nursing staff, rather than using the tablets supplied by MultiCare. "For most patients, they will have three to four months of full-blown monitoring with the video visits and then move to the second tier when their vitals are more stable," Gariando said. When participating in tier two, nurses will continue to track the medical data that patients transmit with an emphasis on "coaching the patients toward the self-management of their disease."

Customizing the tools. As the program expands, MultiCare is doing whatever it takes to ensure that its technology is capable of supporting this broad range of patients. "The challenge is getting all the disease management templates hardwired into the system," Hornbeck said. To do so, program leaders are leveraging the Honeywell LifeStream Disease Management Question and Assessment model to build out specific disease management templates. With this tool, they plan to build templates to accommodate an array of diseases including cancer, diabetes, stroke and others.

Optimizing the end-results. While MultiCare is focusing on a variety of diseases, leaders are looking to zero in on the specific interventions that will bring the greatest returns, in terms of improved quality of care and reduced costs.

"We are focusing a tremendous amount of attention on medication management because we expect to get significant results. The medical management literature says that about one to three billion dollars a year in healthcare costs can be attributed to non-compliance. And, 10 percent of all hospitalizations are due to non-compliance. And, unfortunately, patients simply don't always take their medications," Gariando pointed out.

Ensuring a successful launch. Medication management is a key component baked into all MultiCare's disease management programs. Even though the Honeywell monitors are simple to use, the patients are often elderly and need assistance. Therefore, MultiCare technicians always work directly with patients when setting up equipment in the home. During this process, the techs also engage the patients in a medication reconciliation exercise.

"The tech helps the patient as they gather all of their medications and then shows them how to use the camera to go over the medications with the nurse," Gariando said. "The nurse has the hospital records and goes through the medication list in detail. At the same time, the tech helps as the patient holds up each pill bottle and shows it to the nurse – and they go through each medication one-by-one. About half the time, the patients don't know what medications they are supposed to be taking and this helps them get on the right track from the beginning."

By strategically expanding the telehealth program, MultiCare expects to continue to improve care, reduce readmissions and enhance patient satisfaction – all while reducing costs.

Integrating specific objectives into the workflow.

Instead of conducting telehealth sessions without any specific purpose, specific disease management questions are integrated at specific points in the telehealth process. For example, there are specific points in the care process when the telehealth nurses will ask cancer patients about pain control or diabetic patients about sugar levels.

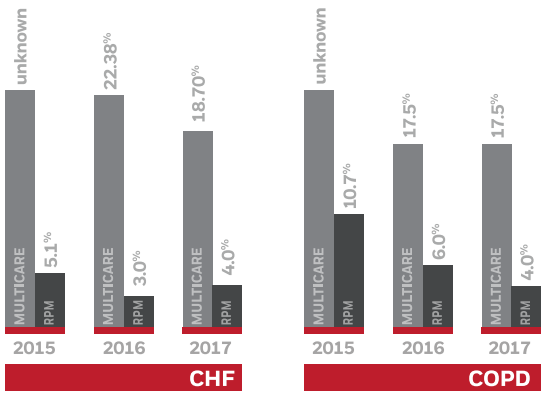
To ensure that patients continue to adhere to their medication regimens, medication management is purposefully integrated into the telehealth nurses' workflow. For example, the telehealth nurses focus on medication management on Tuesdays by asking a series of specific questions about the patients' medication compliance. On Wednesdays, the nurses follow up to make sure the patients took action on any gaps that were identified the previous day. And, on Thursdays, the nurses work with the patients to ensure that they are prepared to stay in compliance with the medications over the weekend.

"With this pre-designed workflow, we can optimally staff each day because we have a better idea of what our needs will be," Hornbeck said.

FIGURE 1

RPM Telehealth Metrics
Reported by MultiCare Health System's Home Health Program

January, 2015 – July, 2017
30 Day Readmission Rate



Results: Reduced hospital readmissions

Just how successful has Multicare's telehealth program been? Now in its third year of using video technology the program is showing positive results in reducing 30-day readmission rates for both heart failure and COPD. For heart failure the 30-day RPM readmission rates as shown in Figure 1. have never exceeded 5.1%, which compares favorably with national CHF 30-day readmission rates of 25% . In addition, when compared to all of MultiCare's heart failure patients, the RPM patients experienced 30-day readmission rates of 3% and 4% compared to 22.38% and 18.70% respectively for the two reporting periods (2016 and January – June, 2017).

For COPD patients participating in the RPM program 30-day readmission rates have decreased steadily since the program was implemented - 10.7% in 2015, 6.0% in 2016, and 4.0% January-July, 2017. These readmission rates also compare favorably with national COPD hospital readmission rates of 20.2%

Results: Positive Patient Satisfaction

Patient satisfaction is another area where hospital organizations can demonstrate improvements in care delivery which can also impact reimbursement levels. A summary of the satisfaction surveys administered in 2017 to RPM patients are shown below. For all but one question, 93-97% of patients answered positively with an agree or strongly agree response. The highest rated questions (agree or strongly agree) were for reliability and ease of use of the equipment (97%) and whether the patient would use the equipment in the future (96%).

The impact of MultiCare's RMD program has already resulted in improved patient care, enabling patients to stay in their homes and has increased the efficiency of care delivery by reducing the high cost of rehospitalization. While no formal return on investment (ROI) study has been conducted, an inhouse study by MultiCare in 2015 estimated a cost savings of $1.9 million. Further, with 30-day readmission rates at low levels MultiCare avoids costly penalties from CMS levied on hospital organizations with unacceptably high readmission rates. Going forward MultiCare is expanding its RPM programs to include diabetes, cancer, and stroke. It expects to realize similar benefits while continuing to demonstrate that is possible to simultaneously deliver both improved and more efficient patient care

[1] Modern Healthcare Emerging Heart Failure Strategies Improve Outcomes and Reduce Readmissions May15, 2015

[2] Shah T, Churpek MM, Coca Perraillon M, Konetzka RT. Understanding why patients with COPD get readmitted: a large national study to delineate the Medicare population for the readmissions penalty expansion. Chest. 2015;147(5):1219-1226.

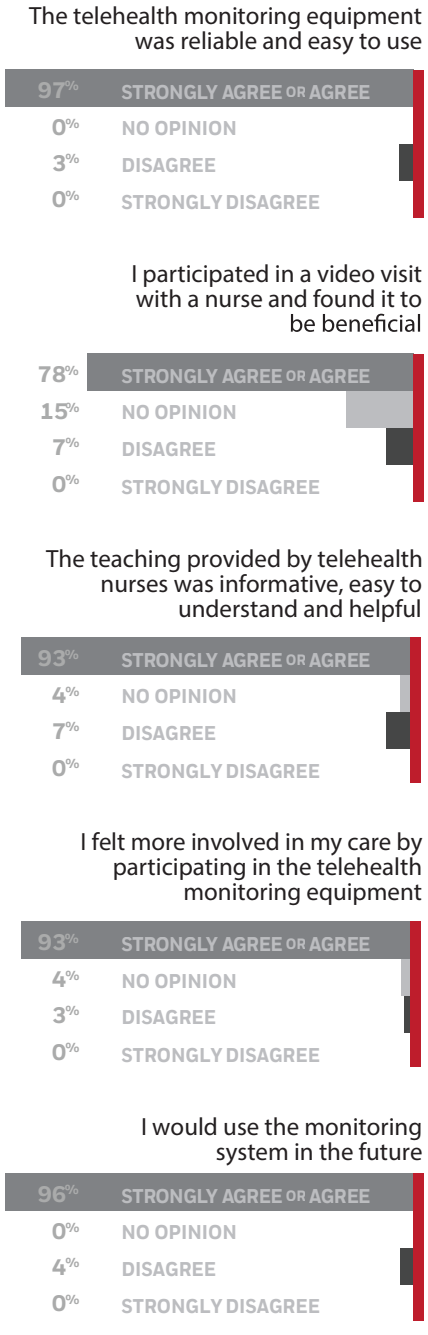
For more information

www.honeywelllifecare.com

Honeywell Life Care Solutions
3400 Intertech Dr. Suite 200,
Brookfield, WI 53045
888.353.5404
www.honeywell.com

CP439.01 | 11/2017

FIGURE 2
Telehealth Patient Satisfaction Survey Results from Remote Patient Monitoring in MultiCare Health Home Program



Honeywell