Telehealth Program Provides COPD Patients with Comfort and Care

Video conferencing important component of Goshen Health Population Health Program

There’s nothing quite like a good night’s sleep in your own bed. Just ask Jim, an end-stage Chronic Obstructive Pulmonary Disease (COPD) patient who has spent many a night tossing and turning in unforgiving hospital beds. Thankfully, though, a new telehealth initiative administered by Goshen Health is now keeping him away from the hospital and letting him get the sleep he needs in the comfort of his own home.
Building a platform

In the summer of 2015, Goshen Health leaders determined that the organization needed to lay the foundation for population health programs, as such initiatives were becoming central to success under emerging payment models that reward providers for quality outcomes.

“Our executive leadership realized that we needed to do population health in a more cost effective way. They wanted to get out ahead of the curve to succeed under value based care,” said Josi DeHaven, RN, manager of ambulatory care coordination at the Goshen, Indiana-based community hospital.

As a result, the idea of establishing a new telehealth program with chronic disease patients began to emerge. The fact that the hospital’s telehealth equipment – which was being used in home health – was old and too expensive to maintain pushed the idea of purchasing new equipment to the front-burner. The organization began to look for a telehealth solution that could support both its existing home health program as well as chronic disease and population health initiatives that could be administered by Goshen Health’s Accountable Care Organization (ACO).

To move forward, hospital leaders issued a formal request for proposal (RFP). To support their burgeoning population health programs, they would need a solution that offered both video capabilities as well as the ability to connect via a 3G or 4G wireless connection.

“We have a large Amish population in the area. So, we have a sizable patient population that doesn’t have phone lines or Wi-Fi connections in their homes,” DeHaven pointed out.

After reviewing proposals from several vendors, leaders chose to purchase 70 units (Honeywell Genesis Touch) that collect and then transmit biometric data to the LifeStream Management Suite, Honeywell’s remote

The Needs

“There were several occasions when I was not feeling well and through the telehealth visits, the nurses were able to catch it early enough,” Jim said. “By reviewing my vital signs and observing me during the telehealth visits, nurses would establish that I needed a medication change. They would work with the doctor and make sure I got it – and that would get my symptoms back under control. So, I could stay at home, instead of in the hospital.”

Keeping patients like Jim out of the hospital is precisely what Goshen Health is aiming to do with its innovative telehealth program. A look at how the initiative came to be, its early success and its future direction sheds light on not only how telehealth can help individual patients like Jim but on how such programs could become an integral component of successful population health initiatives.

The program is helping Jim and his caregivers take a more proactive approach to his care. His participation involves sending vital signs daily to a care team and using a video-conferencing function to meet virtually with care coordinators at least once a week.
patient monitoring software that provides a single consolidated view of patient information enabling care providers to make informed, data-driven decisions. The devices also enable patients to conduct real-time online visits with caregivers through the videoconferencing function. With these units, the hospital can support its existing home health programs, as well as emerging chronic care and population health initiatives that are being administered via the ACO.

**Leveraging new tools**

With the equipment purchased and ready to be deployed, Goshen Health leaders wanted to test the population health waters -- and thought that COPD patients could greatly benefit from a dedicated disease management program that leverages telehealth.

After identifying COPD patients as its initial patient population, clinicians developed a disease management program that could be administered through the telehealth equipment. The program consists of an initial home visit, daily remote vital signs monitoring and weekly videoconferencing.

After fine-tuning the installation process and training the care coordinators on the use of the equipment, Goshen Health launched the initiative by enrolling 10 COPD patients in an eight week trial program.

During weekly video visits, ambulatory care coordinators in the ACO met with patients, counseled them about specific health challenges and provided education covering topics such as medication management, stress reduction and breathing techniques.

In addition, if patients presented with specific problems, specialists such as physical therapists or dieticians were brought in to participate in the videoconferences as well.

The care coordinators also stayed in close communication with physicians, continually keeping them apprised of patient progress. As such, the doctors often made changes to medications or care plans after receiving a report from one of the care coordinators or after reviewing the vital signs.

“I had a patient who has chronic liver disease and kidney problems. He’s very stable now and I think that is largely because he has participated in the telehealth program and, as a result, became much more involved in his own care. I also had a patient last year who had a serious heart failure condition and I think the program was able to keep her out of the hospital,” said Jason Moshier, MD, a primary care physician at Goshen Health.

While telehealth is being used to help a variety of patients at Goshen Health, DeHaven pointed out that the COPD population health initiative specifically was able to:

**Coordinate care among multiple providers.** One patient was seeing a variety of specialists to manage COPD, hypertension and other conditions. “We were able to use the results from telehealth vital signs monitoring and
communicate to all three specialists. So, all three were going off the same lists of meds. The patient was able to make substantial improvement as we kept close tabs on meds and blood pressure and were able to manage care much more effectively,” DeHaven said.

**Provide valuable education.** One patient who was receiving oxygen treatment was still experiencing trouble breathing. The oxygen therapy had little effect as the patient was continuing to smoke. Because the patient had severe neuropathy, however, she couldn’t feel the gas and brake pedals and couldn’t drive to the hospital for smoking cessation classes. So, the care coordinator worked with a smoking cessation educator to deliver sessions via videoconferencing.

“The patient and the educator created a real connection during the video sessions. He used a variety of props that were educational in nature. We saw a level of patient engagement that is on a whole different level. It was something that you really could not achieve on the phone,” DeHaven said. As such, the patient was able to stop smoking – and move on with medication management and other treatments.

**Facilitate timely in-person care.** During a videoconference, the care coordinator observed one patient “guppy breathing,” a deep breathing that often involves movement of the jaw and shoulders. In fact, the caregiver noticed that the patient’s whole body was moving to catch his breath. The patient also told the nurse that he was quadrupling his medication just to get comfortable. However, the patient did not want to make a visit to the doctor’s office – as he was reluctant to spend time in the waiting room.

“We were able to work with the physician office staff and get the patient an appointment – and we were able to ensure that they would be able to see him without having to wait in the waiting room. He was able to get the treatment needed and get in and out of the doctor’s office quickly,” DeHaven said.

**Enhance patient engagement.** The educational component of the program has a positive effect, as many patients are showing evidence of better self-care. “We had patients taking their medications in reverse order and corrected that. We had patients who didn’t realize that they could do pursed lip breathing. In fact, we had one women who had COPD for five years and she had never even heard of any of the breathing techniques. There has been a huge uptick in patient engagement and better self-management of the disease as a result of delivering education via teleconferencing,” DeHaven said.

These are just a few examples indicating that the COPD telehealth initiative is resulting in improved care.

“We realize that we are not going to reverse the COPD disease process. So, we are looking at metrics around knowledge and self-management of the disease. Did we improve the patient’s understanding of COPD and their ability to manage it?” DeHaven said.

Indeed, as the program matures, leaders plan to collect additional data – and scientifically quantify the results. As such, they will assess if the program is helping patients better manage their disease – something which could, in part, be determined by measuring how often patients visit the emergency department or are admitted to the hospital.

In addition, leaders are also planning to expand the population health program to serve patients with other chronic diseases. “Having a diabetes educator talk through blood sugars while videoconferencing with patients would be incredible,” DeHaven said.

And, as they serve an increasing number of patients and realize some of these desired improvements, patients and caregivers alike will be able to rest easier, knowing that everything possible is being done to improve the quality of life for those who suffer from chronic conditions.

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