# **Stories from Telemonitoring**

## **From Addison County**

Telemonitoring patient #1 is a 56 year old woman with a primary homecare diagnosis of Endstage COPD (chronic obstructive pulmonary disease) and is oxygen dependent. She has secondary diagnoses of anxiety and depression. She is on a waiting list for a lung transplant. She started on telehealth on 9/27/13 after a hospitalization for COPD exacerbation and acute bronchitis. Her telehealth program consists of her measuring her own oxygen saturation and pulse. She is called by a telehealth nurse on a daily basis, in addition to scheduled visits by a nurse 2 times per week. Both nurses do a lot of teaching and re-teaching on her medications and signs and symptoms of decompensation that warrant a phone call to us (or her physician).

On 10/15/13 during the routine telehealth call, the patient reported increased respiratory symptoms. The telehealth nurse reported this to the patient's home care nurse and the nurse saw the pt. for an unscheduled visit. After the nurse's assessment and communication with the MD, the patient was started on medications to treat an exacerbation of COPD, all on the same day. A hospitalization was likely averted (certainly this saved an ER visit, which was the patient's prior pattern). This scenario has repeated itself 3 times since then – each time telehealth detected signs/symptoms of decompensation and this led to patient having treatment changes to address the problem. The patient has not been hospitalized since telehealth started. She is much more involved in taking ownership of her healthcare since this started.

Telemonitoring patient #2 is a 55 year old woman who has the following medical diagnoses: CHF, COPD, HTN, obesity, sleep apnea, and lumbar compression fractures. She is dually eligible for both Medicaid and Medicare. She was admitted Addison Home health in July of 2011 and started telemonitoring on 9/20/2011. She measures her blood pressure, pulse, weight, and oxygen saturation on a daily basis and our telemonitoring nurse calls her daily. She has had one hospitalization since this time, for pneumonia. She has had periodic exacerbation of symptoms but these have been managed by the interventions which started with collaboration b/w the telemonitoring nurse and the field nurse and the physician. This program has greatly increased the patient's involvement in the management of her health care.

## **From Bennington**

In December, the Bennington agency admitted a 73 year old man with a primary diagnosis of COPD. The patient had been in the hospital Emergency Department just prior to homecare admission and had 3 inpatient hospital stays since July 2013 for COPD/respiratory related illness. Telemonitoring was initiated for this patient on 12/23/13. Based on telemonitoring data received on 12/30/13, a call was placed to the patient and, after review of the data and speaking to the patient, an RN visit was made. The nurse contacted the doctor with this information who requested to see the patient in the physician's office and new treatments were ordered. It is very likely that this patient would have gone back to the ER, but that was avoided because the home care staff recognized that the telemonitoring results necessitated a call to the patient, an RN visit, and timely follow up by the physician.

#### From Central Vermont

One patient who received telemonitoring services this past year was an 81 year old with the diagnosis of chronic heart failure, hypertension and diabetes, who has had several hospitalizations. The telemonitor nurse noted the patients had a large weight gain, and answered yes to the telemonitor questions on shortness of breath and ankle edema (swelling).

A registered nurse was sent to the home and once there called the physician's with her assessment. The physician adjusted the patient's medication and doubled the torsemide dosage for the week. The patient's shortness of breath improved, her weight went down, and the edema improved. A few days later the patient began having hypertension and fatigue which also discovered by the telemonitoring device. This was reported to the supervisor at the agency and she sent a nurse for a home visit. The nurse noted the patient had an unusual routine of getting up extremely early to start her day. The nurse instructed the patient to adjust the times of her medications.

Since that time, the patient says she has renewed energy and her heart failure is under control and a hospitalization was avoided.

#### From Chittenden

The VNA of Chittenden and Grand Isle Counties had a patient on telehealth with a diagnosis of chronic lung disease. The telehealth monitor showed that the patient had a significant drop with his oxygen level. The telehealth nurse called this patient and noted that the patient was severely short of breath and when talking to her had difficulty participating in a conversation. She also heard audible wheezes during the conversation with him over the phone. The telehealth nurse requested a home visit be done that morning. She notified to doctor to alert him that we were sending out a nurse to evaluate the situation. The doctor's office had wanted the patient to call 911 and go the emergency room but did agree to the telehealth nurse's suggestion of sending a nurse out to evaluate the patient first. The field nurse who made the home visit found that the patient wasn't wearing his oxygen and he didn't understand that he was to wear it all of the time. After resuming the supplemental oxygen therapy in the home and teaching the patient to keep the oxygen on with the oxygen tubing on his face, his oxygen level was back up to normal before the end of her visit with the result of the patient feeling better. Because the telehealth monitor picked up changes in the patient's condition, a nurse was sent out to the patient's home and an evaluation was done. This resulted in avoiding an unnecessary emergency room visit.

The VNA also had a patient on telehealth that had a reduction in a medication frequency and dose that helped to reduce the fluid level in her body. The telehealth nurse called the doctor after noticing that the patient's weight was trending up and suggested that the dose of the medication be adjusted back to twice a day. The doctor agreed and the medication was adjusted back to the previous dose. The patient avoided a potential emergency room visit because of the telehealth monitor and the medication adjustment that was done in response to the reading.

### From Lamoille

B., a 75 year old widow, has been using a telemonitor for the past year. She has not had any rehospitalizations or emergency room visits since the monitor went into her home, prior to that she was seen 3-4 times a year in the emergency room for shortness of breath. She has a history of congestive heart failure and has frequent exacerbations of her disease. With the monitor, the Lamoille agency was able to see weight gain and increases in her blood pressure, which prompted a phone call to the patient and then a home visit when needed. Having a nurse go to B.'s home and then calling the physician with this data has enabled the physician to make medication changes that have allowed B. to stay at home. B. tells our staff frequently that she likes knowing someone is watching out for her each day and states "it's like having a nurse live with you!"