

## Bayada Nurses Slashes Rehospitalization Rate with Home Telehealth System

**Patient #1:** We will call her Alice. Barely old enough to qualify for Medicare, Alice was virtually crippled by heart failure. Any activity more demanding than sitting in a rocking chair left her out of breath, exhausted. Every two to three weeks, she found herself back in the hospital with some type of exacerbation. In April, 2008, her physician called Bayada Nurses and asked if they would admit her and see if there was anything they could do to make what appeared to be her final days more comfortable.

During the ensuing 60-day care episode, Alice did not return to the hospital once. Today, she and her new boyfriend go out regularly. Alice drives and does her own grocery shopping.

**Patient #2:** Him we will call Joey. Somehow, the 30-year old had hidden his illiteracy from everyone involved with his heart replacement surgery until he was discharged with a long list of prescription medications. Unable to understand the instructions, he frequently mixed them up and had to be rushed to the ER in distress. The hospital started refilling his pillbox every weekend but that only worked until he dropped it, scattering pills on the floor, which seemed to happen often.

The hospital asked Bayada Nurses to admit Joey and devise a medication management system for him. Knowing that teaching him to read was not in their charter, they monitored him closely and developed a color-coding system that put him back in control of his medications and of his life, eliminating his trips to the hospital. Eventually, the hospital became so intrigued, personnel asked Bayada to teach the system to their pharmacists and physicians, who continue to use it with other patients.

Miracle drug? Unusually skilled nurses? No, these stories and others like them began to occur after Bayada Nurses implemented a home telehealth system. Alice was given an in-home monitor and began daily reports of her weight and other vital signs as soon as she was admitted to a home health episode. Joey's monitor enabled him to keep his nurses informed about his medication compliance.

### That's nice for them but we can't afford it

Every discussion of the benefits of remote patient monitoring inevitably turns to two issues. "How does a home care agency invest in expensive telehealth equipment when Medicare refuses to reimburse for it even though they know how much it slashes their recidivism costs?" and "Our patients would never put up with a computer and a bunch of medical peripherals in their living room."

Bayada's Clinical Support Specialist, Allison Sterner, RN appears to have solved both of these issues, plus an additional one about clinician productivity and the nursing shortage. In a conversation with HCTR editor Tim Rowan, she answered the second question first.

"When it came near the time to discharge 'Alice,' we explained that we would be taking our home telehealth system back because it was part of the Medicare home health benefit, which was ending. Before discharge day, we received a call from Alice's family. After seeing the astounding improvement in their mother's condition over those two months, they flatly refused to let us take her monitoring system away. 'Just tell us what it will cost,' they said."

Today, nearly two years after discharge, Alice still has her monitor. Just as they did when she was within a PPS payment episode, Bayada nurses respond quickly if Alice's weight, breathing or other measurements exceed the parameters her physician established.

Alice's family gladly pays a monthly fee for the system, which takes us back to the first common question, echoed by her family when Alice was about to lose her monitor. While some home telehealth systems run between \$1,000 and \$5,000 for the patient-side unit, plus hosting fees and software licenses, Bayada's costs a fraction of that.

Allison Sterner picks up the story. During a chance encounter with a physician she is acquainted with, she heard about a home telehealth system called "Ideal Life," which was used by his hospital. He was also serving as a consultant to the company at the time. The hospital was discharging heart patients with Bluetooth weight scales, blood pressure cuffs, pulse-ox finger clips and stethoscopes and a small communication device that gathered vitals from the wireless peripherals and transmitted them through either a phone line or network cable. The communication device, called a Gateway, could be plugged into an electrical socket, stored out of sight and forgotten.

Alice's family pays approximately \$200 per month for the equipment, plus Bayada's charges for monitoring and visits.

That chance encounter and conversation between Sterner and her physician friend not only introduced Bayada Nurses to Ideal Life but also introduced Ideal Life president Jason Goldberg to home health care. Previously, his Toronto-based company had only been marketing to hospitals, physician groups and health plans. The original concept around which the company was founded was to develop affordable, discrete telehealth products that did not made a patient's home look and feel like a hospital room.

Bayada's interest was in finding technologies to help its market position, streamline its operations and better enable the 170-site, 18-state home care agency, with additional offices in the United Kingdom, to care for a wider patient demographic.

Monitor episodes  
as they happen.  
Make corrections  
before episode ends.

Immediate access  
to visit, staff activity,  
and OASIS data.

Have key indicators instantly  
by team, diagnosis, clinician, or physician.

**Home Health Gold**

### The case of the skeptical patient

Allison Sterner finished Bayada Nurses' home telehealth story with the saga of the hypertension patient we will call Rosanne. Healthy well into her 70's, she suddenly began to struggle with high blood pressure but could not be convinced by her physician that her symptoms were caused by her diet. He referred her

### Careful, gradual implementation

Telehealth Program Leader Ann Painter, RN, MSN explains that Bayada had not specifically been looking for a new home telehealth system when Sterner met with her physician friend but saw how such a discreet system would help meet their patients' needs. Two offices were chosen to pilot the Ideal Life system, mostly with CHF patients, though also for a few diagnosed with hypertension, COPD and diabetes.

Once the anecdotes and early results began to arrive, the 2-office pilot became a system-wide rollout. Today, 21 of 45 Bayada offices that provide skilled nursing services are using Ideal Life monitors. The rest will begin later this year, with more offices added every month. So far, each office has noticed that its staff can carry a patient load about 20% larger than before.

Goldberg told HCTR that cost has always been key to his vision. "We think we can keep our prices at about one-eighth to one-tenth of other telehealth systems," he said. "We see ourselves as a collaborative partner of the health plans, IPAs and now home health care agencies that we serve. To do that, we had to develop an open system that we could customize." (See Tim Rowan's video [interview](#) with Goldberg, recorded at the April, 2009 ATA meeting in Las Vegas.)

### System basics

There are three components to the Ideal Life home telehealth system, Goldberg explained. First are the Bluetooth medical devices, which can be placed around the home in their usual locales. Second is the Gateway, which, as mentioned above, is typically tucked away out of sight, attached to either a telephone line or a network cable. Third is the Information Management Engine, which allows data to be sent, stored and viewed on a secure web server.

Though Bayada Nurses has not published rehospitalization or patient outcomes results yet, due to the program's early implementation stage, Goldberg was able to report a couple of results gleaned from his work elsewhere.

When physicians equip CHF patients with Ideal Life monitors, they have recorded a 57% reduction in hospital readmissions. Hospital discharge planners report a 50% return rate reduction with patients of all diagnoses who are sent home with an Ideal Life system upon discharge.

<http://www.bayada.com>

<http://www.ideallifeonline.com>

to Bayada with instructions to monitor bp and provide diet education. At first, her Ideal Life monitor revealed constantly fluctuating blood pressure measurements.

"Why are you so resistant to the idea that diet causes your blood pressure to spike?" her case worker asked her after one particularly severe episode. Rosanne's answer speaks loudly about the role of motivation as a cue to patient behavior. "I am alone all week except for Sunday supper at my church. If I follow your diet, I can't eat with my friends and I lose my only social life."

The wise nurse told Rosanne to go to her church suppers but to follow the strict, low-sodium diet they had given her the other six days. That worked for two weeks.

One night, actually 2:30 in the morning, Rosanne connected to her monitor and recorded her blood pressure. Within minutes, the on-call nurse who received a pre-programmed alarm from the Ideal Life system called Rosanne in a minor panic. "Are you OK? What's wrong?"

"I was just testing your 'theory' that diet affects my blood pressure," Rosanne admitted. "Tonight I ate an entire can of clam chowder for supper. I guess you were right."