Northfield Retirement Community Utilizes Remote Monitoring Technology to Improve Clinical Effectiveness and Increase Revenue

Category: Cost of Care and Return on Investment (ROI)

Organization Name:

Northfield Retirement Community

Organization Type:

Senior Care Community

Other Partners:

None

Organization Description:

Northfield Retirement Community is a faith-based not-for-profit senior care community which serves residents throughout the entire senior care continuum. From skilled nursing to independent housing with services, Northfield is dedicated to the development of living environments and outreach services that facilitate the highest level of care for its 400 residents.

Project Description:

Northfield Retirement Community adopted remote monitoring technology to proactively manage and anticipate residents' care needs, automatically detecting adverse situations and emerging health concerns before they turn into emergencies. To date, the program has improved response time, resident/family satisfaction, staff productivity, and increased occupancy/retention rates. It also provides staff with better data upon which they can determine the best service packages based on individual needs and conditions.

System Type:

Healthsense eNeighbor: State-of-the-art monitoring technology on a scalable WiFi platform to give care providers the power to proactively manage and anticipate residents' care needs, including automatic detection of emergency situations and emerging health concerns. Monitors and sensors combine to meet the specific health needs of a resident and help communities meet care, occupancy and resident satisfaction goals across the continuum of care.

System Embodiment:

- WiFi network backbone.
- Emergency call pendant.
- Custom monitors designed for wandering or missed medication.
- Custom voice reminders for staff and residents.
- ADL reports to track health and wellness indicators.
- Scalable with vital sign device.

Business Model:

Virtual care/service packages based upon residents' individual care plans. A modest increase in rent was implemented to cover the cost of the technology.

Implementation Approach:

Northfield worked closely with the Healthsense implementation team to deploy the eNeighbor system. Healthsense managed design and implementation of the enterprise-wide WiFi sensing infrastructure. The critical objective of the final design was to maintain similar quality, reliability and functionality as is expected in a wired system. This required addressing several key issues, including coverage, capacity, quality of service and wireless security.

Internally, Northfield focused on staff and resident adoption of the technology, including:

- Identification of champions within nursing and administration.
- Creation of training materials.
- Comprehensive educational sessions to convey the substantial benefits of sensor technology to residents and staff.

Advantages to the Approach:

- Technology: Reliable, scalable wireless coverage for fail-safe sensor operations.
- Adoption: Greater and faster acceptance by clinicians, staff, residents and families.

Outcomes:

Since implementing eNeighbor in 2008, Northfield Retirement Community has been able to create individualized care plans based on a variety of parameters, including physical and cognitive conditions. Doing so allows the typical resident to remain independent an average of 6-12 months longer than was possible without passive monitoring.

As a result, higher acuity services such as short-term rehabilitation utilization are available to those who truly need them. Remote monitoring also allows Northfield to more effectively utilize staff. Because the system continuously monitors for and alerts to possible problems, staff can focus more time and attention to those in need of higher levels of care. The data

the system collects about residents as they progress across care settings also helps Northfield continuously enhance its services.

"We are able to gather more information about our residents so we can set the system based on specific individual parameters such as diagnosis and cognitive or physical condition. We can more closely monitor how quickly or how slowly they are progressing to different clinical levels," said Kyle Nordine, President and CEO, Northfield Retirement Community. This has allowed us to offer more services than we have in the past, which gave us the opportunity to realize additional revenue. We have also added a number of staff members to care for our growing number of residents," he added.

By charging a moderately higher monthly fee for technology-enabled service packages in current rooms—a fee that is lower than the incremental cost of memory and other high acuity care—Northfield is able to more than offset the cost of the installation and ongoing maintenance. These service packages generate a 20 percent increase in revenues, while additional revenues are also realized through stable occupancy rates.

"Because the portal notifies us if residents are outside of the parameters set through the technology, we no longer have to conduct safety checks every night," said Nordine. That alone has strengthened our bottom line, but the real benefit has been allowing our residents to age safely in place without the need for a costly expansion," he explained.

Challenges and Pitfalls to Avoid:

The greatest challenge for Northfield's remote monitoring champions was educating staff, residents and families on the many benefits of the technology. This was resolved by adopting an approach focused on "patience, trust and confidence that we were doing the right thing. This helped us work together as a team to support each other during this new great adventure," said Nordine.

Lessons Learned:

The most valuable lesson learned has been that remote monitoring technology "is our new frontier, one we can use to help create a new paradigm for how we care for our elderly and others who are in need," said Nordine.

Advice to Share with Others:

Nordine advises others "not to wait to begin the process of reviewing and selecting remote monitoring technology to enhance operations and clinical care for residents and patients."