

GE Healthcare

Community Technology Update: Compassionate Care



QuietCare® helps Cerenity set new standards of excellence in eldercare

South St. Paul community embraces advanced technology to enhance resident health and safety

How do today's leading-edge assisted living communities achieve an ideal balance between resident independence, well-being and privacy while controlling their operating costs?

For growing numbers of communities, the QuietCare® proactive care system has become a major part of the solution. And Cerenity Residence of South St. Paul is among its most enthusiastic advocates.

Part of Minnesota's not-for-profit Cerenity Senior Care Corporation, this community features 60 apartments ranging in size from studio to two bedrooms, with 16 of them reserved for memory care. It's located in the city of South St. Paul near the Mississippi River, on the former site of the Sioux village of Kaposia. One of the National Civic League's 1990 All American Cities, South St. Paul is a small, family-friendly community adjacent to the state capital in St. Paul.

A clear mission

Pronounced like the word "serenity," Cerenity substitutes a "C" for the "S" to emphasize caring, community and compassion, according to Property Manager Anna Petersmeyer. This emphasis is evident in Cerenity's approach to caring for its residents, whose average age is 83.

"It's our goal to create an environment that promotes independence and dignity for all of our residents," Petersmeyer said. "It isn't always easy. Aging people, especially those in memory care, are not always great historians from the standpoint of reporting recent events, and that can make it a challenge to know what services they really need."

The Cerenity staff watches over individual residents as closely as possible without compromising anyone's independence, dignity, or privacy.

"We do conduct routine checks every day to make sure everyone is okay. Should someone fail to show up for a meal, we'll check on him or her right away. And we also provide all residents with an emergency pendant so they can summon help in between those checks."

But these tools are not foolproof, she pointed out.

"Someone could fall two minutes after a check, and if that's our only source of information, we might not find out about it until he fails to come to the dining room for the next meal – especially if he's among those residents who refuse to use, forget to wear or are unable to press the buttons on their emergency pendants."





QuietCare sensors are placed wherever a resident might benefit from monitoring – at exit doors, in bedrooms, in bathrooms, adjacent to medications, even in refrigerators.

Ingenious and unobtrusive

Tailored to meet the requirements of the individual community and resident, QuietCare uses a series of compact wireless motion sensors to learn residents' daily routines in their apartments – and then to document subsequent activity, alerting caregivers to certain deviations from their normal patterns.

For example, QuietCare sensors can be positioned inside and outside the bathroom to detect more frequent or extended bathroom visits, in the bedroom to track delays in getting up in the morning, or at exit doors to alert staff to nighttime wandering. Positioned near medications, these sensors can even help caregivers track whether residents appear to be taking their medications at prescribed intervals.

The data collected by QuietCare are automatically sent to its server for analysis and reporting. This information is accessible to staff via online, password-protected reports available in near real time, as part of daily summary reports emailed to staff members' PCs and delivered to staff pagers as alerts for certain potential emergencies.

The result? A non-intrusive tool that helps give caregivers the knowledge they need to intervene promptly in out-of-the-ordinary situations, enabling directed care that can reduce the risk of accidents and hospitalizations alike. QuietCare reports also help arm administrators with the information needed to determine the care levels that individual residents require, and to make compelling cases for those levels to residents' families.

There is an almost unavoidable trade-off among safety, privacy and cost in a conventional assisted living setting, she said. And even if Cerenity were to place more emphasis on safety than privacy, it would be difficult for the staff to keep a closer eye on so many residents without adding additional staff.

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But Cerenity's leadership was not willing to accept that safety/privacy/cost trade-off. Once advanced monitoring technology began emerging a couple of years ago, they started exploring the technology as a potentially compromise-free solution to the dilemma.

Evaluating the alternatives

“We didn't expect technology to replace our existing system of in-person checks and emergency pendants,” Petersmeyer said, “but to augment it, providing us with additional information around the clock so we could act promptly on our residents' behalf. That's what we were looking for in a monitoring system.”

Cerenity's objectives included early detection of health issues from infections to insomnia, she said, as well as being alerted to potentially dangerous situations early on, to help the staff prevent accidents and injuries.

“Obviously, capabilities like these were important to us,” she said. “We wanted to be able to track residents' behaviors without intruding on their lives.”

There were several alternatives using fairly similar strategies, she noted. “It then became a question of cost and local support – and QuietCare emerged the clear winner on both fronts. We were particularly impressed with QuietCare's outstanding local clinical team; it was instrumental to our decision to go with this system.”

The solution

Convinced that this technology could make a significant difference in residents' lives, Cerenity's leadership moved forward quickly. In 2008, they launched a pilot program in 20 apartments, including all 16 memory care units and four assisted living spaces. So successful was the pilot that QuietCare was installed community-wide in early 2009.

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The configuration of the system depends on the size of the apartment, Petersmeyer explained, with each unit having six to ten sensors (see sidebar). Alerts requiring immediate attention – such as a notification that a resident has been in the bathroom longer than a preset threshold – go to pagers carried by nursing assistants who are on hand 24 hours a day. Petersmeyer and the nursing staff receive the same alerts by email for follow-up, as well as daily reports for review and analysis.

“QuietCare has given us a second set of eyes,” she said. “We're detecting problems and potential problems early on now, without any increase in staff and without compromising anyone's privacy.”

Health and happiness

Petersmeyer cited several areas where QuietCare has already been particularly helpful.

“First, it has given us early warnings of potential health problems,” she said. “If we see a spike in bathroom usage, the usual cause is a urinary tract infection, which is easy to treat when it’s caught early. The information provided by QuietCare helps us catch UTIs within 24 hours of onset. That’s just amazing!”

The system can also help the staff clarify the extent of a problem, confirm self-reporting, and determine the need for intervention, especially at night.

“A resident recently complained to her family and her doctor that she was up half the night,” Petersmeyer said. “QuietCare’s information told a different story, showing us that she only rarely got out of bed at night. Without this information, her doctor might have prescribed sleeping pills for her. With this information, he was able to take a different approach, without unnecessary medication.”



Anna Petersmeyer, Property Manager

Giving this one a hand with dressing and grooming tasks?

“QuietCare tells us, even logging in the exact time of response. It allows us to demonstrate who’s doing what he needs to do, and who is not. And having this information in hand has enabled us to take the appropriate action.”

It’s just common sense, she said.

“Our staff knows that QuietCare is installed, and they know what it tells us. If someone is slacking off even though he knows we’re watching, we can only conclude that he doesn’t care. And we simply will not tolerate a ‘don’t care’ attitude here.”

That’s one reason she’s received such positive feedback on the system from residents and their families. But there are others.

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“You’d be surprised at the interest family members take in QuietCare reports,” she said. “They often ask to see the reports to gauge their loved ones’ activity levels, or to learn more about a particular incident, such as a fall and staff response time. We’re able to provide them with a fairly narrow window, and they are very grateful.”

The bottom line

Petersmeyer said it’s too early to quantify QuietCare’s financial impact for Cerenity. But she expects it to be significant, based on their experience to date.

For one thing, the system’s reports are giving them a solid understanding of which residents would benefit most from specific services.

“We recently found that one of our tenants was spending two hours in

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Early detection of possible bathroom falls is another important capability, she said.

“Just the other night, a woman fell in her bathroom and could not get up. When she hadn’t exited the bathroom within the preset period of time, QuietCare promptly alerted her aide, who was able to come to her rescue. Without that alert, the resident might have remained on the floor until the next check, or until she missed the next meal. Instead, thanks to QuietCare’s alert, the trauma she experienced was minimized.”

Just as important, QuietCare helps the Cerenity staff keep an eye on residents’ emotional well-being.

“Families want to know how their loved ones are doing,” she said. “Are they active or sitting alone on the couch all day? Are they taking their medications? Are they doing something compulsively, like cleaning or pacing?”

“QuietCare can help us answer these questions and many others. And it can also alert us when there’s been a change in normal activity level – when there’s a great deal of activity where there was none before, or when there’s far less activity than usual. When we spot such changes, we can intervene, or advise the family to do so.”

Staff accountability

Petersmeyer said that QuietCare has delivered an unexpected benefit in terms of monitoring staff – one that gives residents and families alike a great deal of comfort.

“Are our nurses and aides doing their jobs? Checking on this resident as scheduled at 2 and 4 am? Helping that resident take her noon meds?”

the bathroom each morning, struggling to get herself ready for the day, and nearly as long getting ready for bed at night. Thanks to QuietCare, we were able to show her family what was going on, and to get her the help she needed with these tasks.”

Then there was the case of a resident in memory care who’d begun wandering at night.

“It’s a secure unit, so she wasn’t in any danger. But she wasn’t getting the rest she needed. So we’ve added some night checks and bathroom assistance – problem solved.”

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Adding such needed services may help boost revenues, Petersmeyer pointed out. Even more important, it helps residents remain in assisted living with an appropriately higher level of care, instead of moving to a skilled nursing facility.

“We’re working hard to quantify our return on investment with this system,” she said. “Our sister facilities are all considering installing QuietCare themselves. So as you can imagine, they’re watching us with great interest.”

A marketing tool

QuietCare’s advantages have also made it an effective marketing tool for Cerenity, Petersmeyer said.

“We tell prospective tenants and their families about QuietCare, presenting it as a safety tool that can improve their quality of life and might even help them avoid or delay another move. We don’t charge for this service; it’s built into the rent. And we’re the only facility in the area offering it, so it’s definitely a boon to our marketing efforts.”

There have been a few objections from residents, she said. But when they find out that there are no cameras or microphones involved, their objections usually vanish.

Residents do have the option of having the Cerenity staff turn the sensors off in their apartments, she said.

“So far, no one has taken us up on that offer.”

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