



Silent watch

Monitoring system helps with residents' care

By Amanda Oglesby

April 7, 2010

A woman wakes up in the middle of the night. By the bed, a sensor records her movements. She goes to the refrigerator to get a drink, and another sensor within the fridge silently keeps track. The woman shuffles to her bathroom. Twenty minutes go by, and she has not left. A sensor above the door triggers the woman's QuietCare system to page a nurse, who quickly comes to her room.

This is the changing face of assisted living at the Bella Terra retirement community in Jackson, which installed the discrete motion sensors in November in the suites of its assisted-living and Memory Care residents.

In the past, nurses might check on residents throughout the night, but the seniors were left alone in the hours between visits.

"Even if you go every two hours, between those two hours, something could happen," says Stacey Davis, Bella Terra's director of marketing. "And now, with this tool, you even know what's going on those two hours that you normally could not have possibly been there every moment."

A conscious person in an emergency might be able to call for help — if a bell or alert system were within reach. If not, precious moments could be wasted waiting for assistance.

But this is starting to change. The facility's QuietCare system, made by GE Healthcare, can be individualized to a person's habits and can page a nurse when an unusual action triggers its computerized system of alerts.

In one apartment, one thin, white sensor is installed above the bathroom door, and another above the entrance. Within a small refrigerator, another sensor sits on a shelf.

"It can detect how often somebody's going into their refrigerator," says Assistant Director of Resident Services Elizabeth Machanska. "Excessive hunger is one of the signs that diabetes may not be fully controlled."

The device also can detect and report abnormal room temperatures, or whether medication is being taken as instructed.

And, the system senses when Bella Terra staff are visiting a resident and how long each visit lasts.

That's proved useful for Bella Terra executive director Gladys Christopher.

"It helps us in monitoring the staff interaction to the resident," Christopher says. "It's good for me as executive director, and I think for any nursing supervisor."

The system works best for detecting subtle warning signs of potential health problems before they become serious and costly, says Machanska, the kinds of signs that a nurse may not notice during short visits.

The system also notices a lack of movement.

"If there's been no activity, no movement, no getting up, and it's a time when they're normally getting up. . . that's a red flag as well," Davis says.

Machanska sits at a computer that monitors the QuietCare system alerts for the facility's residents. Each patient's alerts are listed in rows of green, yellow and red circles. Clicking on a resident's green circle under the category "Night Bath," she sees how frequently they used the bathroom, at what times, and how long each visit lasted.

Then, she clicks a neighboring yellow circle.

"Yellow is a caution," Machanska says. "That's seven times they went into their refrigerator. That's unusual. It's not a red alert. They're not going in every 15 minutes. But it's unusual for that person.

No Bella Terra staff member has to sit at the computer for QuietCare to work. The alerts are immediately sent to staff pagers once triggered, listing the type of alert and room number of the resident. The computer simply serves as a log of each incident.

"It's good that you don't have to be sitting at the computer in order to get these alerts," she says. With the system, "I'm more efficiently able to place my staff," says Machanska. "Now we can zero in on those residents that are higher risk."

QuietCare has proved especially useful in monitoring the health of Bella Terra's residents in Memory Care, its wing for people with dementia and Alzheimer's disease. Because some of these seniors would not complain of a new health problem to a nurse, or would not call for help in an emergency, the motion sensors are invaluable, she says.

"I think that every nurse would love to have a system like this," Machanska says. "It's really cutting edge. It's exciting.