

Releasing

Safety-monitoring devices have had an alarming effect on geriatric patients. Here's how.

By Janet DeTufio

Treating elderly patients is a tough enough task. But add the burden of protecting them from hazards while in your care, and it's no surprise that therapists have turned to technology for help.

Safety-monitoring devices for geriatric patients are helping to heal an industry beset by liability costs due to falls and accidents. These problems are not limited to just slipping on floors and tumbling — or sneaking — out of bed. Noncompliance is the No. 1 reason for nursing home admittance. And in-home monitors are now being used to verify that the mending patient conforms to his or her prescribed dosages of medication.

Measures such as these and other in-facility devices have become part of the rehab standard. But once upon a time, the primary approach for safety was restraint.

Why Restraint Is No Longer Welcome

Connie Kirkpatrick, coordinator for nursing quality management at Good Samaritan's Hospital and Rehab Center, Puyallup, Wash., explains why this practice has become a thing of the past.

"Geriatric rehab certainly does add a liability concern because you're balancing the patient's right to freedom of movement against the organization's responsibility to protect the patient from undue risks. Any risks that you have in the home, such as instability, decreased visual acuity, all those things stay with you in a hospital environment, so you cannot remove those underlying risks. Then we add the new debilities that you have relating to the condition that brought you here, such as a stroke.

"So you have a relatively high-risk population who also deserve to not be restrained [affecting] quality of life," she continues. "The costs go into designing systems that increase high observation rates, and onone-to-ones, which are hugely expensive, but allow you to promote patient safety without having to restrain them 24 hours a day. This is not a way that anyone wants to live."

Additional costs enter the picture via time spent by professionals tracking and documenting movements whenever a patient is restrained. There are also special equipment costs, such as with enclosed bed systems, which provide a way of protecting patients without having to restrain limbs. Vail beds, for example, range from \$4,950 to \$5,950.

The Vail bed has a protective net around it, and there is a total care model that can be lowered to 17 inches off the ground to keep people from falling out.

Special matting can also be used to put around beds so that if a patient is unstable and falls, injury will not occur. Bed alarms are used to alert staff when a person gets out of bed.

"If a patient falls and you have not done reasonable and customary care to protect that patient, then you may be liable. But you can't remove all risks without restraining a patient 24 hours a day," Kirkpatrick says. "We carry some risk into the world with us, and the hospital is part of that greater community, but we certainly do that risk. I think the cost would be greater to people if we weren't protecting their safety."

the Restraints

Safety-Monitoring Devices

Several manufactures produce and sell devices for today's rehab industry. RN+ Fall Prevention Systems vice president Kathy Hutman believes that patient safety is a national challenge and that fall prevention occupies a major domain in that arena.

"Nurses still take pride in their profession for its emphasis on caring, safety, and restoration of health and quality of life," Hutman says. "A patient fall is the antithesis— for the patient and the caregiver — resulting in a downward spiral. In the case of an elderly patient, he or she rarely returns to the prior level of well-being. The fall may even result in death."

RN+ has an adaptable monitoring device system. One receiver can monitor up to 64 patients at a time. The system consists of three components: a receiver console located at a nurses' station, a signal unit located at the patient's bed or wheelchair, and sensor(s) located under bed linens or in a wheelchair seat.

Its wireless monitoring allows bypassing of the nurse call system and functions as an independent monitoring system. This alarm sounds only when a patient is attempting to leave his or her bed or wheelchair while unassisted.

A sensor used to detect patient movement is constructed of flexible materials that maximize patient comfort and service even while being flexed by heavy weight or uneven bed surfaces. There are three sensor sizes: the standard bed sensor, the tri-wide bed sensor and the wheelchair sensor.

"The business climate has changed dramatically since we first began testing and selling the RN+ system more than 10 years ago," says Hutman. "We have seen the direct impact of regulatory changes regarding the use of physical restraints in nursing homes and hospitals. Ten years ago, facilities expected patients or residents to sign a waiver if they did not wish to be restrained. It is now common practice for a waiver to be required when restraints are used. Compliance and outcomes govern health care decisions.

"We also believe that the recent proliferation of new devices like ours indicates that there will be increasing demand for noninvasive preventive products," continues Hutman. "The coming generation of elderly health care consumers (the adult children of today's elderly) are going to demand prevention, especially in situations where it is so simple and it makes good sense. We should expect a strong generational shift in thinking about all aspects of elderly care and current health care practices spending will be affected."

Making the Home a Safer Place

The growing costs of caring for patients have made the home a popular place for recovery; however, once there, compliance can easily come to an abrupt halt. Prescribed home care treatments are often forgotten or ignored. Programs such as Lifeline and Target Microsystems help maintain the rehab routine for the elderly patient healing at home.

Don Ridgeway, president of Target Microsystems, says that noncompliance has been called the silent epidemic, killing approximately 140,000 people a year and causing almost 25 percent of all nursing home admissions along with around 160,000 senior citizen hospital admissions.

"Noncompliance is a big problem, so we've focused on remote monitoring capabilities so that we can make sure of the well-being of the patient recovering at home, by making sure that people take their medicine when they are supposed to," Ridgeway says.

More and more patients are now recovering at home because of the heavy costs involved with a facility stay. But for the geriatric population, the problem with this is that about one half of in-home recovering patients do not comply with their prescribed doses of medication.

"We have a patent that was issued less than a year ago for medication monitoring," says Ridgeway, "and we're being awarded a patent on ensuring compliance with a self-measurement of things like blood pressure so that we'll know that they not only do the procedure, but that the doctor can know the outcome of the test."

believes that the noncompliance issue is an easy one to solve, which would, in turn, solve many of the problems for those who must accept liability for the noncompliant patient. What Target Microsystems has done is to create a small telehealth-monitoring device called Medi-Minder. The Medi-Minder prevents self-medication noncompliance and provides what the company deems a fail-safe



Enclosed beds, like the Vail 1000, are increasingly popular as a restraint-free safety measure.

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It also provides a time-delay emergency response protection for users who might be unable to press a help button in the event of an immobilizing emergency.

When the user opens the pill box, removes the medicine and then closes the box, the circuitry inside silently sends a signal to an 800 number at a UL-listed central station. The central station computer verifies that the signals are received within dosage time windows uniquely defined for each user. If the signal is not received within its time window, when it's not time to open the box or if the box is left open too long, the patient gets a telephone call from a telehealth professional. And if the patient doesn't answer, then a designated relative or friend is called to alert them of the situation.

"We spent a lot of time communicating with elderly folks to see what they would be willing to put up with and what they weren't willing to put up with. Right across the board, all of them had seen those 'fall and can't get up' television commercials, and most of them would rather risk death than be caught wearing a neck pendant" Ridgeway says.

"The elderly of today don't intend to get old, and they don't want to be bothered unless



Noncompliance has been called the silent epidemic, killing approximately 140,000 people a year.

there is a need for it. So, with our system, if the patient is compliant, we'll leave them alone. If they are not, we'll give them a call."

The system can be purchased or leased and is not currently covered by Medicare. Ridgeway states that Medicare's main goal over the last few years has been to off-load to HMOs managed care of elderly people. He says it's difficult to get new equipment like this approved for reimbursement.

"This is amazing to me because we have numbers that show Medicare is losing something like \$5 billion a year just in senior hospital admissions that are compliance-driven," Ridgeway says.

Mark Wynn of HCFA's Division of Payment Systems said in a letter to Ridgeway that "the Medicare program does not cover devices like the Medi-Minder since it is defined as a personal convenience item." He went on to say that Medicare is constrained by law to cover only services and devices that are specified in the authorizing statutes. (HCFA had not responded to calls for further comment as of press time.)

Innovative Tracking Solutions Corp., Laguna Hills Calif., is facing similar challenges. Its Private Practice vibration reminder disk can perform several functions. A 3-cm

disk carried in a pocket, clipped under clothes or taped to the skin, the system can be set to remind the wearer to perform rehab exercises, shift weight or reposition as a pressure sore preventive, visit the bathroom or take medications. The disks retail at \$29.95; clinician cost is \$24.95.

Innovative Tracking Solutions president and chief executive Dianna Cleveland says she hopes that ongoing clinical trials will result in FDA approval of the device, which could then qualify it for its own reimbursement code. Meanwhile, she recommends billing the device under HCFA's incontinence or miscellaneous codes. "If you get enough clinicians billing the product, we can have it listed under existing codes." The device, which has been on the market for about nine months, has received approval from a private payer for reimbursement as an incontinence aid.

Other Measures to Reduce Problem

With the new gadgetry in place and specialized personnel laboring within the industry to demonstrate that recovery does indeed take place, is there more that can be done to solve

the liability crisis? Kirkpatrick thinks there is a simpler way.

"People, especially the elderly, are inherently unstable, and they may be frailer, but that's a risk in itself," she says. "So probably the biggest change in hospitals over the last five years has been to use alternatives to restraints."

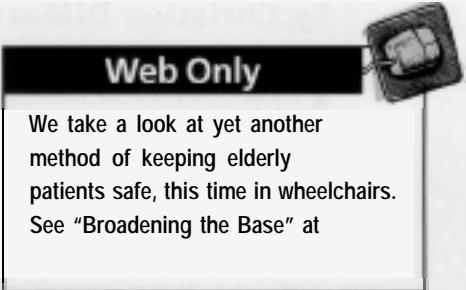
Kirkpatrick suggests keeping people busy so that they're not trying to get out of bed because they're bored. Environmental factors such as good lighting and clutter-free rooms can help. Biopsychosocial factors give the patient socialization and plenty of activities. Other important factors are scheduled bathroom breaks and hydrating the recovering patient properly. Kirkpatrick says facilities have moved toward these solutions, but there is one more alternative.

"Another area that hasn't been developed as well as it could be is better family and patient awareness of their place in the process. In the past, the family was expected to do most of the care. Physicians came in with what little they could provide in terms of what medications and surgery were available, and the nurses took care of the strictly medical

events while the rest of it was up to the family.

"Over the last hundred years, we've really moved to where the staff has almost replaced the family in caring for the patient in a facility, and I think we have to rethink this process," she continues. "What needs to be considered is what's the best thing for the patient. I think in the future the patients' families will have to become more involved. Where are you best putting your professional person's time? Can we better work as a team with families on the patient safety issue? I think that this is where the future is going to look."

Janet DelTufo is a freelance writer based in Arizona. Her email address is janet4news@yahoo.com



Web Only

We take a look at yet another method of keeping elderly patients safe, this time in wheelchairs. See "Broadening the Base" at