Working with geriatric patients offers particular challenges. Yet the results can be considerable.

By Marilyn Pitts

When Debbie Jones, a physical therapist in Tigard, Ore., first met 99-year-old Marguerite Parker, Parker had been in a nursing home for several years. “She was in the typical fleet chair with a sling back and a sling seat with foam,” Jones says. “Her legs were rolled inward and her pelvis was in a posterior pelvic tilt, which made her trunk become more limited, affecting her breathing and circulation.”

Consequently, Parker suffered from considerable back pain, making her irritable. When Parker decided to spend down to qualify for Medicare, Jones conducted a complete mat evaluation of Parker’s condition to assess her needs. She recommended a Quickie Breezy lightweight chair and a Jay Care back and seat system. By putting Parker in a wheelchair with smaller diameter (20-inch) wheels, Jones provided her client with enough range to bring her elbows far enough back to have full excursion on the wheel. The stability Parker receives from the seating system also better protects her skin and increases elongation in the trunk, Jones says.

The intervention took place a year ago and the results have been dramatic, she adds. “Before, Marguerite was very inward with her pain and didn’t talk to people. Now she’s clearer cognitively and buzzes up and down the ward talking to everyone. She’s more comfortable, more aware and more pleasant.”

Photos by Carole Archer
Unfortunately, the problems Parker was experiencing are more typical than atypical, according to therapists interviewed by TeamRehab Report. Improper seating and positioning combined with insufficient funding often results in elderly people in wheelchairs suffering needlessly. Notes Jones, “One of the main problems with some of our funding agents is they say, ‘[This client] is too old to do an intervention. Why should we spend that kind of money?’”

However, the good news is that even the most basic seating and positioning adjustments can yield dramatic results, therapists add. “Unlike younger people who go through a rehab hospital, geriatric clients typically receive little training or education about equipment,” points out Stephen Sprigle, Ph.D., Center for Assistive Technology, State University of New York at Buffalo. “As a result, any type of intervention, even low-tech, has a good effect.”

Appreciable Differences
Overall, the geriatric client has different seating and positioning needs than a younger client. The aging process results in fragile skin tissue, a kyphotic spine with limited flexibility and a limited range of motion. “Some of the rules you might have with a younger person you have to leave by the wayside with the geriatric patient,” comments Linda Amrein, P.T., Courage Center, Golden Valley, Minn.

Comfort is a primary concern, she and other therapists say. For example, tissue damage is a common problem with the geriatric patient, points out Kerry Jones, rehabilitation designer, Rehabilitation Technology Center, Memorial Hospital, South Bend, Ind. “Older tissues are not as pliable and are more prone to shear and breakdown,” he explains.

Kyphosis, another typical condition, also requires appropriate seating and positioning, says Cathy Bazata, O.T.R., Within and Without, South Bend, Ind. “When patients are in geri chairs, that recline position can put them at risk for choking and aspiration. When eating, they’re forced to look up, cutting off their food track and forcing the medicine or food into their lungs.”

Positioning patients more upright to accommodate their fixed orthopedic tissues also creates a psychologically positive effect by providing them with a level eye gaze to socially access their world, Bazata adds.

Further, correctly positioning an older adult also benefits the caregiver, according to Geoff Fernie, Ph.D., P.Eng., C.C.E., director, Center for Studies in Aging, Sunnybrook Health Science Center, Toronto, Canada, and professor, department of surgery, University of Toronto. “It reduces the stress on the back and shoulders of the caregiver and cuts out some of that repositioning care.”

In evaluating the geriatric patient’s condition, a primary question in determining equipment is where the client lives, Sprigle says. “What I can provide for a person in a ‘nursing home is drastically different than what I could give them if they were at home.”

Typically, at-home patients receive more attention in terms of a properly fitted chair, explains Nora Pritzl, O.T.R./L., director of O.T., Issaquah Care Center, Hillhaven Corp., Issaquah, Wash. “If the patient goes home, Medicare will pay for a walker or wheelchair,” she says. “If they’re staying in a nursing home, Medicare won’t provide.”

In addition, long-term care facilities typically have a number of different people monitoring equipment and there’s often a high turnover rate.
resulting in decreased training, Sprigle points out. “In a facility, they tend not to monitor multiple or adjustable devices as, say, a single caregiver in the home would.”

Since the wheelchairs provided in nursing homes are part of the per diem, they typically are geri chairs, Kerry Jones says. “People can’t position correctly in them and just recline. Also, the bases are too high off the ground so they can’t reach to self-propel.”

“You see the worst of the worse,” Debbie Jones says. “Technology is very limited in the nursing home because of lack of funding and knowledge. Often you’re working with wheelchairs made 30 years ago.” Frequently the wheelchairs are too high and the armrests aren’t removable, Bazata adds.

There are some positive notes to this grim picture, however. Sometimes the patient’s family will pay privately for a customized wheelchair, Pritzel notes. Also, funding can often be obtained if a need can be shown, she adds. “For example, if you want an elevating legrest rather than the standard, you need to show the patient has edema.” However, considerable documentation is required for each item, she notes.

Sitting Right
When seating the elderly patient, it’s important that he or she sit in an upright position, therapists note. “If they don’t have an extremity that needs to be elevated, make sure that their knees and hips are about 90 degrees,” says Neva Greenwald, P.T., University of Mississippi Medical Center, Jackson, and president of the APTA’s Section on Geriatrics.

Essential is a solid, firm seat, not a sling seat, say therapists interviewed by TeamRehab Report. Sling seats affect the patient’s balance, causing him or her to lean in one direction or another. A firm seat allows the older person to more easily push up out of the chair.

Seat height can often be a problem, Sprigle notes. If a person has had a stroke or hip fracture and the seat depth is too great, for example, it will prohibit the person from reaching the floor with his or her uninvolved leg. To reach the floor to propel, the patient often slides forward to reach the ground, resulting in improper positioning and back pain. “Reduce the seat depth,” he advises. “One solution might be substituting a thinner cushion that still provides pressure relief or cutting the cushion down on that side to allow their hip to extend to the ground.”

Also, since geriatric facilities are no longer allowed to restrain patients, positioning someone in a chair correctly can help prevent falls and reduce the need for restraint, therapists report. For example, a wedge cushion that is taller in the front makes the knees higher than the hips, and, consequently, makes it harder for the patient to stand and helps keep him or her from sliding out, Pritzel explains.

Back Accommodations
Instead of a straight back, geriatric clients are better seated in a wheelchair with a solid curved back, which accommodates kyphosis, therapists say.

Lumbar support is needed but can be overemphasized with the geriatric patient, Fernie adds. “An older spine is a lot stiffer and doesn’t want to adapt to that extreme curve.” The result is that the client continually slides down in the chair and has to be lifted up by the caregiver, he notes.

In addition, neck support needs to be adjusted to accommodate fixed kyphotic deformities such as the hunchback spine often seen in elderly women, Fernie says.

Forward flexion capital extension is a common compensatory pattern with the elderly. To offset this, accommodate the patient’s back so he or she can have a level gaze and see their environment, Debbie Jones advises.

Also common with kyphosis is fixed posterior pelvic tilt. “Put the patient on a mat and see what you can do with the pelvis,” Jones notes. “Then pro-what certain products might do and try the product out with the patient. Give them about a week before actually making the selection.
What you might think is right might not work for them.”

To move from standing to sitting, armrests need to be at least to the front of the chair, Fernie says. In addition, the armrests should be parallel to the seat, broad and comfortable.

The armrests need to be easily graspable at the front of the chair to aid in standing, he adds. “As geriatric patients rise, they’re unsteady because they aren’t balanced and usually have postural hypotension. Falls are the largest accidental source of death for the elderly, and hip fractures are very problematic.” Nonslip handgrips help increase grip strength, adds Eric Sabelman, Ph.D., section chief, human machine integration section, Palo Alto VA Rehab R&D Center, Palo Alto, Calif., and co-chair West, RESNA’s Gerontology Special Interest Group.

It’s also essential that the patient’s feet are properly supported. The correct footrest prevents potential falls and hip injury, Sabelman says. “Hip injuries are common for patients with very limited function. They get their foot caught in the footrest.” A footrest with a scoop rather than just a strap makes a difference, he adds.

In addition to conditions common with aging, the geriatric client can also suffer from a number of medical conditions that can create even further sitting and positioning challenges, therapists say. Stroke patients need to be evaluated in terms of the affected side’s impact on correct seating and positioning, points out Terri Self, C.T.R.S., St. Mary’s Regional Rehab Center, Blue Springs, Mo. “You need to worry about the shoulder and make sure there is some support with a sling or arm trough to ensure gravity doesn’t pull the arm out of the arm socket.”

Edema of the lower extremities also needs to be avoided by elevating the legs or using a stool to elevate the legs, Self says.

Overall, the therapist must look at the patient’s present medical condition and future prognosis to correctly prescribe a wheelchair. For example, says Pritzel, if a person is diagnosed with Alzheimer’s, the therapist should consider a chair that reclines. “The patient will eventually need that chair, and it’s harder to get changes made later.” Also consider a lightweight wheelchair so the patient can more easily maneuver as his or her condition worsens, she advises.

Therapists should also consider the psychological ramifications of a wheelchair to the geriatric client. “It’s a further loss of control,” Greenwald explains. Overcome negative feelings by pointing out the positive aspects of the wheelchair, she advises. If the person is going to be in the wheelchair for a long time, help them personalize the chair in some way, she suggests.

Educating for Change

Education is in high demand with geriatric patient cases, therapists say. Often what the client learns of wheelchairs is what they see at the pharmacy, Sprigle says. In addition, third-party payers, administrators and staff all need to be educated on the importance of proper seating and positioning.

“Therapists need to educate nursing home administrators so that the next time they order per-diem chairs they get removable height-adjustable armrests, swing-away footrests and hemi-height or low seats,” Bazata says. It’s important to help administrators see that the overall patient cost is less in the long run, she adds. “The correct wheelchair requires less custodial care and staff, but that cost comes upfront.”

In general, seating for the elderly is an enormous need. However, meeting those needs creates a more comfortable life for the client. In the case of Parker, that difference is “a wonder to see,” notes Debbie Jones. “Before, Marguerite was tactile defensive. Now she comes up to me with a smile and says, ‘Hi, honey. How are you doing today?’”