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Guest Editor's Message

By Julie A. Braun, J.D., LL.M.

page **2**

Guest Editor's Message

By Steven Charles Castle, M.D.

page **3**

Federal Legislation Seeks To Reduce Falls Among Older Americans

By Julie A. Braun, J.D., LL.M.

page **4**

Perspective by Senator Michael B. Enzi 4

Perspective by Senator Barbara A. Mikulski 5

Home Safe Home: Preventing Falls Through Environmental Assessment & Modification

By Julie A. Braun, J.D., LL.M.

page **8**

What Professional Geriatric Care Managers Need to Know: A Nursing Home Update

By Julie A. Braun, J.D., LL.M. with an introduction by Marcie Parker, Ph.D., CFLE

page **13**

Practical Fall Risk Assessment in Older Adults with Multiple Medical Problems and/or Chronic Disease

By Steven Charles Castle, M.D. & Dorene Opava-Rutter, M.D.

page **17**

Guest Editor's Message

By Julie A. Braun, J.D., LL.M.

Falls are the leading cause of injury, death and disability among persons 65 years of age and older. Therefore, this issue devotes its attention solely to falls and fall-related injuries.

Geriatric care management takes many shapes and continues to evolve into new practice contexts. Consequently, professional geriatric care managers (PGCMs) should keep abreast of recent legislation, litigation and regulation that may impact their profession. This issue begins by reviewing federal legislation, *Elder Fall Prevention Act of 2003* (S. 1217), that seeks to reduce falls among older Americans (page 4) and supplies perspectives on the subject by bill sponsors, U.S. Senators Michael B. Enzi and Barbara A. Mikulski (pages 4 and 5, respectively).

The issue continues its efforts to update the PGCM's knowledge by sharing results of a web-based survey released in March/April 2003 that highlights the surge in litigation involving nursing homes along with significant increases in average recovery size for claims involving *fall-related injuries*, pressure ulcers, dehydration and weight loss, improper use of physical restraints, medication errors, and sexual assault (page 13); conveying findings of a General Accounting Office report (July 17, 2003) noting that the proportion of nursing homes with serious quality problems remains unacceptably high, despite a decline in the incidence of serious problems (page 14); and relating data from a July 2003 Office of Inspector General report regarding ombudsman resident care complaint categories (page 15). This information allows the PGCM to identify trends, issues, and concerns in institutional long-term care making them better advocates for their clients.

The issue then shifts topics to home assessment and modification. According to a May 2003 AARP housing survey, *These Four Walls . . . Americans 45+ Talk About Home and*

Community, http://research.aarp.org/il/four_walls.html, 83 percent of older Americans prefer to stay in their current homes for as long as possible. Respondents believe their homes comfortable as well as convenient and emphasize that they feel secure and independent there. However, as people age, their physical and/or mental abilities may change making it difficult or even impossible to remain in their residence without environmental modifications. PGCMs offer a variety of services that may incorporate an environmental audit into the assessment process. During this diagnostic home visit, the PGCM assesses environmental hazards and recommends modifications tailored to the client's unique needs. The goals: to promote mobility, reduce the likelihood of falling, ensure continued independence, and improve quality of life. Learn more by reading *Home Safe Home: Preventing Falls through Environmental Assessment & Modification* (page 8).

Next, the issue considers *Practical Fall Risk Assessment in Older Adults with Multiple Medical Problems and/or Chronic Disease*

(page 17). This article offers PGCMs a better understanding of the fall assessment process from a clinical perspective. It covers, among other areas, taking a falls history, reviewing fall event(s), underlying medical conditions that contribute to falls, issues that worsen fall risk, and medical problems that increase exposure to falls.

Last, issue content is punctuated throughout with brief reminders on the relationship between falls and footwear, falls and osteoporosis, and falls and vision.

Julie A. Braun, J.D., LL.M., guest editor, thanks Jihane K. Rohrbacker, Communications Director of the National Association of Professional Geriatric Care Managers, for her thoughtful comments on issue content as well as her assistance, patience and humor during issue creation, assembly and generation. In addition, Ms. Braun appreciated the invaluable editorial input kindly offered by Marcie Parker, Ph.D., CFLE, incoming Chair of the GCM Journal Editorial Board; the generosity of Jeffrey M. Levine, M.D. who shared his wonderful photographs; and the opportunity to work with Steven Charles Castle, M.D., a talented internationally-recognized falls expert.



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Guest Editor's Message

By Steven Charles Castle, MD

Professional geriatric care managers (PGCMs) are generally contacted in times of near crisis for an elder and their families. Part of the reward is making a difference when families are stressed beyond their limits. The PGCM does this by advocating for the client and helping the client to navigate the complexity of geriatric syndromes, and aiding the client's understanding of the nuances of continuity of care in many types of health care settings. The crisis situation may center around attempts at prevention of a serious event reviewed in this journal: falls. Falls, while often catastrophic, have been shown to be preventable, and hence one source of the rapid increase in litigation in the long-term care setting.

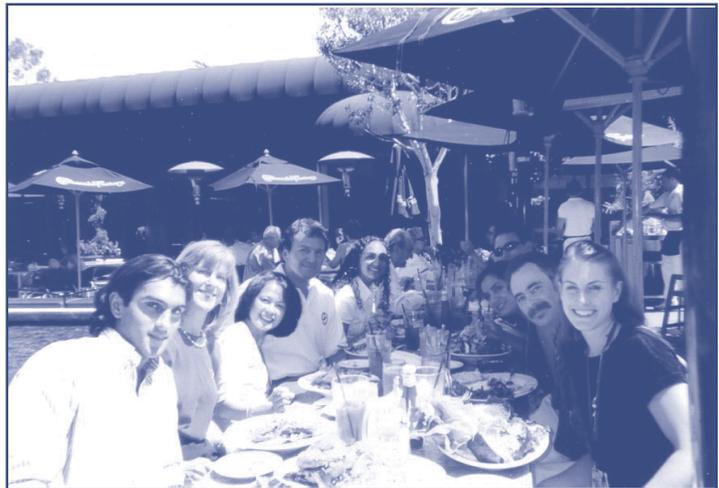
Litigation matters are not part of most PGCMs' training. At the center of most litigation matters, outside of egregious actions, is the debate over whether the standard of care was provided. Improved understanding of fall events and falls-related injuries will improve a care manager's ability to act as an advocate. The goal is to provide a more practical understanding of the complexity of falls and their

outcomes, balanced with information related to the medico-legal liability in this high-risk area.

This balanced approach will better enable the PGCM to assist clients and families to ask appropriate questions.

APGCM should provide the suggestions, support and facilitate access to services that are at or exceed the standard of care for persons at risk for falls. Despite the challenge, there is tremendous reward in truly

making a difference when it matters most, even though untoward events may happen, because you have given clients and families the confidence that they have done all that could be done by considering various approaches to fall management.



Assessing fall risk in older adults is challenging in any setting. The VA Greater Los Angeles Fall Prevention Clinic Team tackles the complexity of the issue. Team members pictured left to right include Ashal Sahai, Dorene Opava-Rutter, M.D. (Physiatrist, Co-Developer), Maria Peralta Manzano, Bob Weaver, Parisa Mazandarani, Kyle Patterson, Mona Fiuzat, Pharm.D., Steven Charles Castle, M.D. (Geriatrician, Co-Developer), Michelle Voss-McCarthy, D.P.T. Karen Perell (Biomechanist, Principal Investigator) is not pictured.

Relationship Between Falls & Vision

By Julie A. Braun, J.D., LL.M.

Impaired vision is highly prevalent and notably unreported in the elderly population particularly among older women and nursing home residents. Visual impairment is a recognized risk factor for falls and influences the risk of hip fracture making identification of such a deficit critical to the design of an appropriate fall prevention intervention. Clinical studies underscore the relationship between

falls and certain visual factors: poor visual acuity, impaired contrast sensitivity, decreased visual field, posterior subcapsular cataracts, and nonmiotic topical glaucoma medications. A fall intervention strategy should incorporate a regular ophthalmic examination to detect, monitor, or treat an older adult's vision as low vision may be compounding or causing falls. An appropriate intervention for an older adult with reduced retinal sensitivity

and hence impaired dark adaptation might include the provision of a nightlight to offset the influence of impaired dark adaptation. A change in an eyeglass prescription, correcting refractive error, improving stereopsis (i.e. depth perception), or cataract extraction, among other possibilities, may improve visual function and prevent a future fall and fall-related fracture.

Federal Legislation Seeks To Reduce Falls Among Older Americans

By Julie A. Braun, J.D., LL.M.

On June 9, 2003, U.S. Senators Michael B. Enzi (R-Wy.) and Barbara Mikulski (D-Md.) introduced the *Elder Fall Prevention Act of 2003* (S. 1217), a bill that seeks to address falls among America's elder population. Subsequently, the measure was referred to the Senate Committee on Health, Education, Labor, and Pensions. Senator Tim Hutchinson (R-Ark.) and Congressman Frank Pallone, Jr. (D-N.J.) introduced a similar measure last year in the Senate and House, respectively (S. 1922 and H.R. 365).

Falls-Related Statistics

The proposed legislation relates the following statistics concerning falls and fall-related injuries:

- Falls are the leading cause of injury deaths among persons 65 years of age and older;
- By the year 2030, as the baby boomer generation is added to the ranks of the elderly, the number of people over age 65 is expected to double, potentially doubling the number of elder falls and by 2050, the number of individuals 85 years of age or older will quadruple;
- In 2000, falls among elderly individuals accounted for 10,200 deaths and 1,600,000 emergency department visits;
- Sixty percent of fall-related deaths happen to persons who are age 75 and older;
- One fourth of elderly persons who sustain a hip fracture die within one year;
- Hospital admissions for hip fractures among the elderly increased from 231,000 admissions in 1988 to 332,000 in 1999 with the number of hip fractures

expected to exceed 500,000 by 2040;

- Annually, more than 64,000 individuals who are over 65 years of age sustain a traumatic brain injury (TBI) as a result of a fall;
- 40,000 individuals over age 65 visit emergency departments with TBIs sustained as a result of a fall each year, of which

16,000 are hospitalized and 4,000 die; and

- Rate of fall-induced TBIs for individuals 80 years of age or older increased by 60 percent from 1989 to 1998.

Bill Overview

The *Elder Fall Prevention Act of 2003* adopts a national approach to reducing elder falls and focuses on the daily life of older adults in residential, institutional, and community settings. The effort incorporates a wide range of organizations and individuals including family members, caregivers, health care providers, social workers, and others who touch the lives of senior citizens. The bill seeks to amend the Public Health

(continued on page 5)

P E R S P E C T I V E

Senator Michael B. Enzi on the *Elder Fall Prevention Act of 2003*



Walking—climbing the stairs. Things we may take for granted. But for many of our nation's elderly, they are a source of anxiety and apprehension.

Anyone with an elderly parent, relative or friend who lives alone has experienced concern when a telephone call goes unanswered. Our first reaction often is worry because we know that for many older adults a fall can result in serious injury. As the

telephone continues to ring we wonder if Mom is upstairs and can't hear the phone, whether Dad is in his workshop, or our friend has stepped outside to catch a breath of fresh air. We hang up, wait a few minutes and place our call again, often with a greater sense of urgency as we envision our loved one suffering from the effects of a fall, alone, with no one to help them. Then, when the telephone is answered, a huge rush of relief overcomes us as we realize our fears were misplaced.

Wish that every such story would have this happy ending. For too many older adults, however, it ends tragically as brittle bones and a reduction in our sense of balance become a formula for serious injury and consequent change in quality of life. Although the physical healing process after a fall can be long and traumatic, it often pales in comparison to the psychological effects of a loss of confidence – and therefore activity – of an elderly individual who no longer takes for granted the ability to walk and safely navigate their world without assistance or support.

Fortunately, there are things that can be done to reduce the number of these tragic falls and restore the confidence of our loved ones in their

(continued on page 6)

Federal Legislation Seeks To Reduce Falls Among Older Americans

(continued from page 4)

Service Act (42 U.S.C. 241 et seq.) to direct the Administration on Aging within the Department of Health and Human Services to oversee and develop public education on fall prevention for the elderly and those involved with the elderly, expand research on approaches to fall prevention and treatment, and evaluate the effect of falls on the costs of Medicare and Medicaid as well as the potential for reducing those costs through education, prevention and intervention.

Public Education Campaign

Federal grant money would establish a three-year national education campaign by the National Safety Council (NSC) and provide grants to state coalitions for local education campaigns addressing reduction and prevention of elder falls. The educational efforts principally target elders, their families, and health care providers.

Research Initiatives

Under the *Elder Fall Prevention Act of 2003*, the Centers for Disease Control and the Agency for Healthcare Research and Quality would conduct and support research to:

- Identify older adults who have a high risk of falling;
- Better data collection and analysis to identify fall risk and protective factors;
- Design, implement, and evaluate fall prevention interventions to ascertain the most effective of the numerous potential strategies available;
- Improve strategies already proven effective in reducing falls by tailoring these strategies to specific elderly populations;

PERSPECTIVE

Senator Barbara A. Mikulski on the Elder Fall Prevention Act of 2003



Falls don't discriminate. Kay Graham was the victim of a fall. Many of us have friends or relatives who have fallen. A fall can have a devastating impact on a person's physical, emotional, and mental health. If an older woman loses her footing on her front porch steps, falls, and suffers a hip fracture, she likely would spend about two weeks in the hospital, and there is a 50 percent chance that she would not return home or

live independently as a result of her injuries.

Last year, I chaired a hearing of the U.S. Senate Subcommittee on Aging on the problem of elder falls. The Subcommittee heard testimony from Lillie Marie Struchen, a 91-year-old woman who had recently fallen in her bathroom when she slipped on the tile. Lillie Marie could not reach the panic button in her apartment, and it took her some time before she could get to her feet and call for help. Lillie Marie was lucky. She recovered from her fall and returned to her normal routines. She shared with the Subcommittee some steps that she and her family had taken to prevent future falls, knowing that she may not be so lucky next time.

These falls, like the ones that Lillie Marie and thousands of others suffer from each year, can be prevented. With some help, there are simple ways that seniors can improve the safety of their homes and make a fall far less likely. Home modifications like handrails in the bathroom, rubber mats on slippery tile floors, and cordless telephones that seniors can keep nearby can make a big difference. Well-trained pharmacists can review

(continued on page 7)

- Maximize the dissemination of proven, effective fall prevention interventions;
- Expand proven interventions to prevent elder falls;
- Improve the diagnosis, treatment, and rehabilitation of elderly fall victims; and
- Assess the risk of falls occurring in various settings.

Further, the bill recommends research concerning barriers to adopting proven fall interventions (e.g., medication review and vision enhancement); development, implementation and assessment of the most effective approaches to reducing falls among the very high risk elders living in assisted living facilities, nursing homes, and other types of long-term care facilities; and effectiveness of community programs in preventing

assisted living and nursing home falls.

Demonstration Projects

In addition, the *Elder Fall Prevention Act of 2003* authorizes grants for the NSC and other qualified organizations to conduct demonstration programs in the following areas:

- A multi-state project investigating the utility of targeted fall risk screening and referral programs;
- Programs designed for community-dwelling elderly individuals that rely upon multi-component fall intervention approaches, including physical activity, medication assessment and reduction when possible, vision enhancement, and home modification strategies;

(continued on page 6)

Federal Legislation Seeks To Reduce Falls Among Older Americans

(continued from page 5)

- Interventions targeting newly-discharged fall victims who are at high risk for a repeat fall;
- Private sector and public-private partnerships to develop technology to prevent falls and prevent or reduce injuries if falls occur;
- Design, implementation, and evaluation of fall prevention programs using proven intervention strategies in residential as well as institutional settings; and
- A multi-state demonstration project to implement fall prevention programs using proven intervention strategies designed for multi-family residential settings with high concentrations of elders that identifies high risk populations, evaluates residential facilities, conducts screening to identify high risk individuals, provides pre-fall counseling, coordinates services with health care and social service providers, and harmonizes post-fall treatment and rehabilitation.

Review of Reimbursement Policies

According to bill content, the estimated total cost for non-fatal TBI-related hospitalizations for falls in individuals who are 65 years of age or older is more than \$3,250,000,000. Two-thirds of these costs are associated with individuals 75 years of age or older. The costs to Medicare and Medicaid programs and society as a whole from falls by elderly persons continue to climb much faster than inflation and population growth. Direct costs alone will exceed \$32,000,000,000 in 2020, posing an additional burden on already strapped Medicare and

Medicaid funding. Therefore, bill sponsors believe that the federal government should devote additional resources to research concentrating on the prevention and treatment of falls among older adults in residential, community and institutional settings. This legislation supports proactive and preventive approaches to geriatric falls and contemplates a review of the effects of falls on the costs of the Medicare and Medicaid programs along with the potential for reducing such costs. Evaluation of reimbursement policies will consider coverage of additional fall-related education, prevention, and early intervention services and reimbursement guideline modification.

Legislation Garner Broad-Based Support

The *Elder Fall Prevention Act of 2003* has garnered the support of many advocacy groups, including the congressionally chartered NSC (www.nsc.org), the Emergency Nurses Association (www.ena.org), the Assisted Living Federation of America (www.alfa.org), the American Geriatrics Society (www.americangeriatrics.org), the Brain Injury Association (www.biausa.org), and the American Health Care Association (www.ahca.org). These groups and others have agreed to be partners in this comprehensive effort to address one of the leading causes of death and disability in the elderly.

Perspective: Senator Michael B. Enzi

(continued from page 4)

ability to once again lead a normal life. In an effort to address this issue I am introducing legislation, together with Senator Barbara A. Mikulski (D-Md.), which would take a multi-faceted approach to solving this problem. The *Elder Fall Prevention Act of 2003* will examine every aspect of this matter, from educating the elderly about how to "fall-proof" their home, to researching the causes of most falls and trying to find ways to avoid falls and to provide better treatment to those recovering from them.

The largest generation in our country's history is rapidly approaching retirement. Passing this bill into law will mean a better quality of life for them and for all of our nation's elderly. The sooner we act the sooner we can begin to work to prevent falls and help our nation's elderly live safely and in better health.

Source: Excerpted and adapted from 149 Cong. Rec. S7554, S7555 (daily ed. June 9, 2003) (statement of Sen. Enzi), available at <<http://www.gpoaccess.gov/crecord/>>.

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Perspective: Senator Barbara A. Mikulski

(continued from page 5)

medications to make sure that two drugs do not interact to cause dizziness and throw a senior off balance.

That's what the *Elder Fall Prevention Act of 2003* is about — getting behind our Nation's seniors and giving help to those who practice self-help. This bill creates fall prevention public education campaigns for seniors, their families, and health care providers. It expands research on elder falls to develop better ways to prevent falls and to improve the treatment and rehabilitation of elder falls victims. This legislation also requires an evaluation of the effect of falls on Medicare and

Medicaid, to look at potentially reducing costs by expanding coverage to include fall-related services.

Reducing the number of falls will help seniors live longer, healthier, more independent lives. I look forward to working with Senator Michael B. Enzi (R-WY.) and my colleagues on the Health, Education, Labor, and Pensions Committee to get this bill signed into law.

Source: Excerpted and adapted from 149 Cong. Rec. S7555 (daily ed. June 9, 2003) (statement of Sen. Mikulski), available at <<http://www.gpoaccess.gov/crecord/>>.

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Osteoporosis & Falls

By Julie A. Braun, J.D., LL.M., Guest Editor

Osteoporosis, a skeletal disorder characterized by compromised bone strength predisposing an individual to an increased risk of fracture, affects more than 10 million Americans and an additional 18 million have low bone mass placing them at risk for this disorder (NIH). According to a National Institutes of Health (NIH) consensus statement on osteoporosis prevention, diagnosis, and therapy, residents of long-term care facilities are at particular high risk of fracture. The consensus statement advises that most residents have low bone mineral density as well as a high prevalence of other risk factors for fracture, including advanced age, poor physical function, low muscle strength, decreased cognition and high rates of dementia, poor nutrition, and, often, use of multiple medications.

Fracture prevention is a primary goal in the treatment of persons with osteoporosis. An

osteoporotic fracture can be a tragic outcome of a fall with significant, long-term physical, psychosocial and financial consequences. Therefore, management of osteoporosis is an important adjunctive approach to caring for a person who presents with a risk of falls (Campbell 2002). Assorted treatment modalities are available for older adults with osteoporosis, male or female, who have a history of falls or are assessed as being at risk for falls. A multifactorial approach to preventing falls (e.g., a physical activity program for ambulatory older adults that incorporates Tai Chi) coupled with treatment for osteoporosis (e.g., hormone replacement therapy, calcium intake obtained through diet or supplements, vitamin D and antiresorptive agents) may reduce the likelihood of a fall-related osteoporotic fracture (AGS 2001; Agency for Healthcare Research and Quality 2000A and 2000B; Stevens 1997).

References

- Agency for Healthcare Research and Quality. Osteoporosis Guidelines. National Guideline Clearinghouse (2000A), <http://www.guideline.gov>.
- Agency for Healthcare Research and Quality. Hormone Replacement Therapy Guidelines. National Guideline Clearinghouse (2000B), <http://www.guideline.gov>.
- American Geriatrics Society (AGS), British Geriatrics Society, and American Academy of Orthopaedic Surgeons Panel on Falls Prevention. "Guideline for the Prevention of Falls in Older Persons." *Journal of the American Geriatrics Society* 2001;49:664-72.
- Campbell, A.J. "Commentary. Preventing Fractures by Preventing Falls in Older Women." *Canadian Medical Association Journal* 2002 Oct 29;167(9):1005-05.
- Osteoporosis Prevention, Diagnosis, and Therapy. National Institutes of Health (NIH) Consensus Statement Online 2000 March 27-29; 17(1):1-36, <http://www.consensus.nih.gov/cons/111/111_statement.htm>.
- Stevens, J.A. "The Association of Calcium Intake and Exercise with Hip Fracture Risk among Older Adults" [Dissertation]. Atlanta (GA): Emory University: 1997.

Home Safe Home: Preventing Falls Through Environmental Assessment & Modification

By Julie A. Braun, J.D., LL.M.

Falling is the leading cause of death in women and the fourth leading cause of death in men between 65 and 85 years of age. It is the leading cause of death for men and women over age 85. The percentage of falls among community-dwelling older adults increases from 25 percent at age 70 to 35 percent after age 75. Therefore, it makes sense for geriatric care managers (PGCMs) to incorporate an environmental audit into the assessment process. Most older adults wish to continue to live in their own homes for as long as possible; however, these homes likely are not designed to meet their changing needs. Environmental modifications can promote mobility and reduce the likelihood of falling. This article considers environmental assessment and modification relating to lighting conditions throughout the client's home; floor coverings such as carpets, rugs, runners and mats (but not ceramic tiles, linoleum, wood or other floor surfaces); electrical, telephone, extension and other cords; stairs and steps; and the client's bathroom.

Proper Lighting

Tailor lighting to client visual needs. In general, older adults require two to three times more light than younger persons due to normal changes in visual function that accompany the aging process. However, lower levels of lighting may be appropriate for some individuals. For example, enhanced lighting may impair vision and increase fall risk for

individuals with cataracts or glaucoma. Ideally, the level of illumination is visually comfortable and safe for mobility.

One way a PGCM can determine lighting appropriateness is to observe the client in their home environment and record any difficulties the client encounters. These observations may prompt recommendations for increasing, decreasing, or redistributing lighting levels. The GCM also should tour the client's home. Does the client have effortless physical access to all lighting? Are light switches posi-

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over age 85.*

tioned approximately 32 inches above the floor? Located directly inside or outside doorways and easily visible so the client does not have to traverse a darkened room to activate or grope to find? If appropriately located but not visible, improve detection by using switchplates that contrast in color with the room wall. Purchase switchplates in a different color, remove existing switchplates and repaint, or apply colored adhesive tape around their borders. Alternatively, substitute existing light switches with a "glow switch" that can be seen in the dark. In addition, client functional status may prompt replacement of traditional toggle switches with user-friendly pressure plate controls.

High fall risk locations within the client's home (e.g., path from the bedroom to the bathroom) require special lighting to promote safe mobility and reduce the likelihood of falling. In the bedroom, for instance, the PGCM might recommend a bedside table lamp with a sufficient base to prevent it from tipping over positioned to avoid excessive reaching and possible balance loss, convenient headboard lighting, or a nightlight for adequate illumination. Add a working flashlight to the bedside table drawer (as well as other locations throughout the client's home) for quick, easy access during a power outage.

The ability of the aging eye to adapt to sudden changes in lighting intensity decreases with age. A momentary visual loss and an increase in fall risk may occur when the client moves between dark and brightly illuminated areas. Therefore, propose installing rheostatic light switches that permit the client to increase or decrease illumination levels as desired. Unlike toggle light switches or pressure plate controls, rheostatic light switches prevent sudden and pronounced shifts in lighting.

Other recommended environmental modifications might include:

- Replacing burned out light bulbs.
- Installing additional lighting (e.g., lamps, light fixtures, or nightlights) where appropriate.

(continued on page 9)

Home Safe Home

(continued from page 8)

Passageways between rooms, stairwells, and other heavy traffic areas should be well lit.

- Using inexpensive nightlights that plug into electrical outlets to illuminate hallways, bedrooms and bathrooms.
- Installing power failure lights in key areas to prevent walking in the dark. These simple devices can be installed in electrical outlets and are especially helpful near stairs.
- Using the right type and maximum wattage bulb allowed by the fixture.
- Reducing sources of glare through frosted bulbs, shades or globes on light fixtures, indirect lighting, partially closing draperies or blinds, tinted mylar shades or polarized window glass.

Carpets, Rugs, Runners and Mats

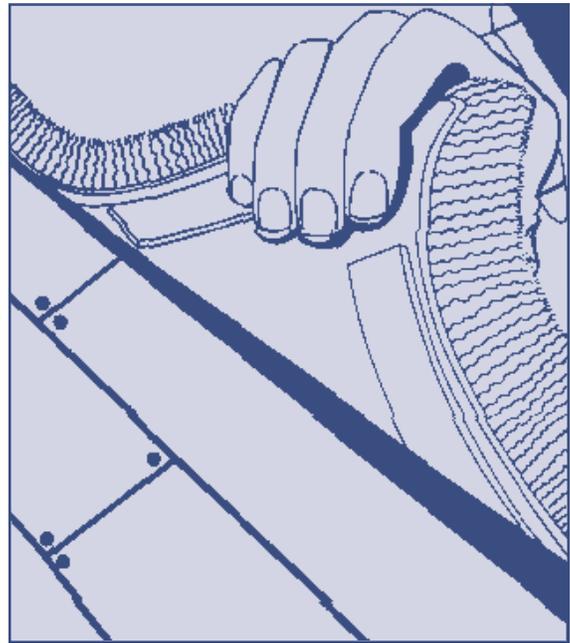
Hospital emergency room personnel routinely treat adults over 65 years of age for injuries sustained after a fall-related event in their home that such older individuals commonly describe as a slip, stumble, trip, loss of footing or near fall involving a carpet, rug, runner or mat. Consequently, the geriatric care manager must consider these floor coverings when performing a fall hazard assessment of the client's current physical environment.

The PGCM might begin the assessment process by asking the client or, if present, their family members and friends about any known falls associated with carpets, rugs, runners or mats. In addition, the PGCM can use his or her own observations as a guide when advising of environmental risk factors and home modification recommendations. For example, are the floor coverings in good repair or noticeably worn and torn? Also valuable is the PGCM's own experience while walking on the client's carpets, rugs, runners or mats. For instance, do the

floor coverings bunch up or slide when the PGCM walks on them?

Home modifications might include, among other possibilities:

- Removing and replacing any carpet, rug, runner, or mat that tends to bunch up or slide underfoot.
- Avoiding throw rugs.
- Purchasing only carpets, rugs, runners and mats featuring slip-resistant backing or padding. Remember that such material can become less effective after repeated washings and, therefore, may require replacement occasionally.



Applying double-faced adhesive carpet tape to reverse side of carpets, rugs, runners, and mats is one way to ensure slip-resistance.

The ability of the aging eye to adapt to sudden changes in lighting intensity decreases with age. A momentary visual loss and an increase in fall risk may occur when the client moves between dark and brightly illuminated areas.

- If the client's budget makes new purchases unlikely, ensuring that offending carpets, rugs, runners, and mats are slip-resistant by, among other options, applying double-faced adhesive carpet tape to the item's reverse side (see graphic above) or adding rubber matting beneath the product. Adhesive tape and rubber matting that can be cut to size typically are available at local flooring and carpet outlets as well as home improvement stores. Periodically check whether new tape or rubber matting is needed because the adhesive on the tape can wear away over time and the rubber matting can deteriorate leaving a powdery substance on the bare floor.
- Making certain that carpets, rugs, runners and mats lie flat and are placed on even floor surfaces.

Choosing aesthetically pleasing carpets, rugs, runners and mats that complement client preferences must be balanced with functional floor

(continued on page 10)

Home Safe Home

(continued from page 9)

coverings that promote safe navigation. Consider, for example, a client's lifelong preference for wall-to-wall shag carpeting that may snag canes, walkers or wheelchairs causing the client or a visitor to fall. The GCM should recommend a more sensible uncut low pile product and suggest that the replacement floor covering retain the color of the shag carpet unless the color choice also presents a potential fall hazard.

As people age, a number of normal changes in the eye's anatomy occur as can several common visual disorders such as difficulty in focusing, delayed glare recovery, decreased sensitivity to light, delay in dark/light adaptation, decreased contrast sensitivity, loss of depth perception, and constriction of peripheral vision. Keep these factors in mind when proposing colors for floor coverings (walls or furnishings). Floral or checkered configurations may lead to misjudgment of spatial distances, for example, while black on a blue background may be difficult to distinguish for an older adult with decreased contrast sensitivity and carpeting with bold patterns may be disorienting for older adults with limited depth perception.

The PGCM cannot ignore the fall hazards presented by surface changes that occur throughout the client's home (e.g., transition from carpeting in the living room to linoleum in the kitchen). Changes in surface can cause a loss of balance unless easily distinguishable by the older adult. Floor coverings in contrasting colors can visually cue the client to the boundary between the surfaces as well as the floor and wall.

The assessment of the client's carpeting, rugs, runners and mats must be considered within a broader context of the client's comprehensive assessment. A client with shaky hands or loss of some or all control over bladder function, for example, may prefer stain resistant easy-to-clean carpeting.

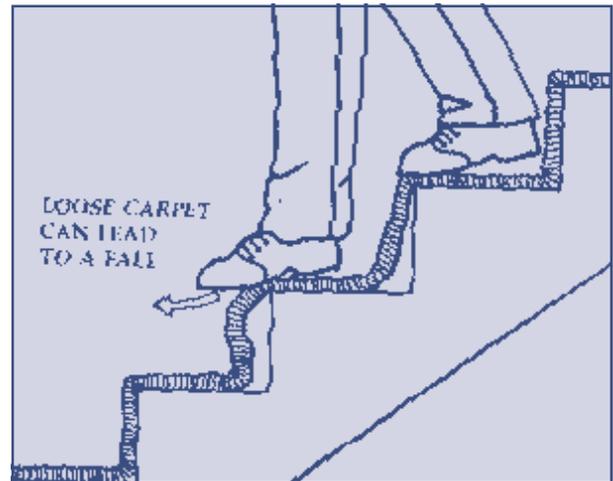
Electrical, Telephone, Extension and other Cords

The PGCM should walk through the client's house and note placement of all electrical, telephone, extension and other cords. Avenues of inquiry might include:

- Are cords positioned out of the flow of foot traffic where they might cause someone to trip over them even if such possibility is remote?
- Are one or more cords lying underneath and/or protruding out from beneath a piece of furniture creating a fall hazard (along with fire and shock hazards if furniture weight has damaged cords)?
- Are any cords lying underneath and/or protruding out from or a carpet, rug, runner or mat where they may cause a fall (or a fire)?

Home modifications might involve:

- Finding a new location for the offending cords, preferably along a wall and not under the furniture, carpeting, rugs, runners or mats;
- Re-arranging furniture so that electrical outlets are available for lamps and appliances without need for extension cords;
- Placing cords on the floor out of the way (e.g., against a wall) where people cannot trip over them or fastening up extra cordage with a twist tie;
- Removing cords from under furniture or carpeting;
- Moving the telephone so that its cord is out of walking paths yet remains accessible if client has to call for help if he or she falls.



Stairs & Steps

The geriatric care manager should ask the client if he or she has difficulty with steps or stairs? For all stairways, the PGCM should check lighting, handrails, and the condition of the individual steps and their coverings. Lighting is an important factor in preventing falls even amongst persons familiar with the stairs. Are two-way light switches located at the top as well as the bottom of inside stairs? Are the switches accessible? The client should be able to turn on the lights from either end before using the stairway. Stairs should be well lit so that each step, particularly step edges, is clearly seen while going up and down stairs. The lighting should not produce glare or shadows along the stairway. Consider installing motion-detector lights that turn on automatically and light the stairway whenever the client approaches.

Handrails are an important addition to any stairway and the client should be educated on the importance of their routine use. Do all stairs in the client's home feature sturdy handrails fastened securely on both sides of the stairway about 30 inches above the stairs? Do handrails run continuously from the top to the bottom (i.e., full length) of the entire flight of stairs and slightly beyond the steps? If not, the client may incorrectly perceive that he or she has

(continued on page 11)

Home Safe Home

(continued from page 10)

arrived at the last step when the handrail stops. Misjudging the last step can trigger a fall. Are the handrails comfortable to grip? Environmental modifications involving handrails might include repairing broken handrails, tightening the fixtures that secure the handrails to the wall, installing at least one handrail (on the right side as the client faces down the stairs) if no handrails are present, or replacing a short handrail with a longer one.

The GCM next shifts attention to the stair steps and their coverings, if any. Are steps even (i.e., same size and height)? A small difference in step surface or riser height can lead to falls. Mark any steps that are especially narrow or have risers higher or lower than the others. Do the steps allow secure footing? Consider placing non-slip adhesive treads on each bare step to improve traction. Are step edges clearly visible? Can the client detect the outline of each step as well as top and bottom landings with the light on? A fall may occur if step edges appear blurred or are difficult to spot. Replace any patterned, dark or deep-pile carpeting with a tightly woven carpet in solid color to better highlight step edges. Are all steps in good condition (i.e., not loose, broken or missing)? If not, repair or replace loose, broken or missing boards immediately. Do stair coverings (i.e., rugs or treads) show signs of wear? Worn, torn or loose coverings can lead to insecure footing, resulting in slips or falls. (see graphic on p.10) Thus, recommend repair or removal and replacement of any stair coverings in disrepair.

Is anything stored on the stairway, even temporarily? The client may trip over any objects left on stairs, particularly in an emergency (e.g., fire) or when racing to answer the telephone. Accordingly, remove all items from the stairway and remind client to keep stairs free of clutter.

Bathrooms

Using Fixtures for Balance Support May Contribute to Falls

A client with balance dysfunction or one who is unable to use a walker in the bathroom because of space limitations may rely upon the towel bar, wall surfaces, and sink top for support. This habit may cause a fall, particularly if the client's hand slips. Modifications to provide balance support include substituting a grab bar for the towel bar or installing a grab rail around the perimeter of the bathroom wall. Further, applying non-slip adhesive strips along sink surface (in a color similar to the sink to avoid visual confusion) will prevent the client's hands from sliding when sink area is grasped.

Toilet Height Must Meet Client Needs

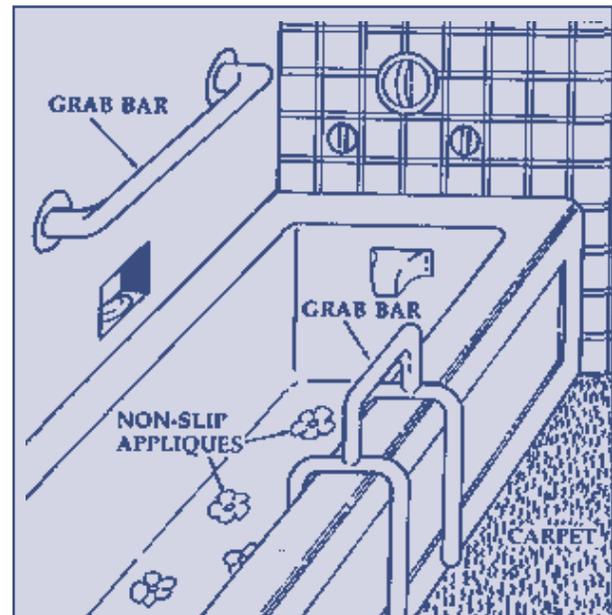
Toilet height can cause a fall and influence an older adult's ability to physiologically use the toilet. Sitting instability may happen if the older adult cannot place his or her feet on the bathroom floor while aboard the toilet. Maintaining feet flat on floor or hips at or below knee height facilitates bladder emptying and bowel evacuation.

Toilet height must satisfy client needs. For example, an older adult recovering from a fractured hip must sustain a sitting position with hips higher than the knees so temporarily adapt the fixture by using a toilet seat riser, thick seat or filler ring. Some ambulatory disabled persons likewise find higher seat heights an advantage. Not so for persons in wheelchairs.

The toilet seat should be constructed of sturdy material to provide sufficient support. Furthermore, the seat should act as an absorptive

cushion (e.g., made of soft vinyl plastic) to reduce risk of pelvic or hip fracture in persons who tend to drop onto the toilet seat.

Low height toilets may pose transfer problems and as a result cause the client to fall. One corrective modification is the raised toilet seat in a fixed or adjustable height to ensure proper toilet sitting height. Another modification that seeks to maintain the client's balance during toilet transfers requires grab bar installation on the walls adjacent to and behind the toilet or attachment of a double armrest grab bar system to the toilet. Some older adults find that the double armrest system provides optimal transferring support since the maximum amount of force exerted during transfers is a



straight downward movement of the arms. In contrast, wall mounted grab bars offer less support because the older adult must reach to the side and bend forward during the transfer process to grab the bar losing the benefit of a downward thrust offered by the double armrest system. As additional cautionary measures, adhere non-slip adhesive strips in a non-contrasting color to the floor in front of the toilet to secure client footing during transfer, only use bathroom rugs with nonskid backing,

(continued on page 12)

Home Safe Home

(continued from page 11)

or install non-slip vinyl flooring throughout the bathroom in a non-slip surface with a padded foundation to minimize fractures in the event the client falls.

Toilet Grab Bar Type and Placement Is Critical

Despite their potential value in preventing falls, community-dwelling older adults underutilize grab bars. Tailor grab bar type and placement to client needs, their disability, and the environment. For example, it is difficult for persons with hemiplegia to use grab bars located on their dysfunctional side; persons of short stature or limited reach find grab bars at heights convenient for the average person unsatisfactory as the bars are beyond their reach; and some older adults (e.g., older women who are generally shorter and possess less upper body strength than men) prefer an angled grab bar to the standard horizontal bar because they can grab the angled bar at the lower position and move up the bar. Select grab bars in a color that contrasts with the bathroom wall to improve their visibility and attach them to wall studs no more than 1½ inches from the wall to prevent the client's arm from slipping between the bar and wall.

Toilet Seat Color Improves Visibility

Toilet seat color is important. The seat itself must contrast in color to the toilet and the surrounding bathroom area to facilitate proper sitting placement on the toilet, particularly for older adults dependent on visual cueing. Older adults with poor color discrimination, for instance, may encounter problems and even fall trying to locate a white toilet seat where the bathroom flooring is white (or a light color) and it may be difficult for older males to void while standing into a white toilet without significant color differences between the toilet and flooring.

Bathroom Doors

Some older adults with a poor grasp open and close pocket style doors (i.e., those that slide like patio

doors and disappear into a vertical slot in the wall) more easily than the traditional barn style doors that require more effort and may cause a fall. House design will determine if installation of pocket style doors is feasible. In addition, lever-type handles are much easier to grasp than doorknobs. The doorway should be wide enough to accommodate an assistive device (e.g., walker). The threshold should be clearly marked and the difference in height between the two surfaces should be no greater than ¼ inch. Remind the client to leave the bathroom door unlocked, so it can be opened from both sides. A locked bathroom door will delay help in reaching client who sustains a fall.

Bathtubs and Shower Areas

Does the bathtub/shower area have at least one grab bar? Grab bars aid the client in getting into and out of the tub or shower, and can help prevent falls. If yes, check existing bars for strength and stability, and repair if necessary. If no, attach grab bars, through the tile, to structural supports in the wall, or install bars specifically designed to attach to the sides of the bathtub.

Alternatively, consider use of a tub bench, chair, or stool with nonskid tips as a seat while showering or bathing if the client is unsteady and unable to shower while standing or unable to lower him or herself to the floor of the bathtub. Purchase a handheld shower attachment as well and install it on an adjustable rod or high-low mounting brackets. The bench, chair, or stool must be large enough to allow the older adult to use a flexible showerhead while seated. A cautionary measure includes mounting a liquid soap dispenser on the bathtub/shower wall so client does not fall while attempting to retrieve soap.

Wet soapy tile or porcelain surfaces are especially slippery and may contribute to falls. Accordingly, place a nonskid rubber mat or apply nonskid textured adhesive strips, decals or appliques on the bathtub

or shower floor. Also replace glass shower enclosures with non-shattering material and add a slip-resistant rug adjacent to the bathtub for safer exit and entry.

Conclusion

The purpose of a comprehensive room-by-room environmental assessment is to identify and remove potential fall hazards and to modify the environment to maximize safe, functional mobility. Interventions aimed at modifying environmental conditions relevant to falls offer the geriatric care manager an appealing approach to falls prevention.

Julie A. Braun, J.D., LL.M., an internationally recognized expert in long-term care, is a Chicago-based attorney and writer. Ms. Braun, braun@newnorth.net, is a visiting professor at various legal and medical institutions, including Emory University in Atlanta and the Universities of Osnabrueck and Witten in Germany. She is the editor of the ElderLaw Portfolio Series, co-author of Litigating Injuries in the Elderly (forthcoming 2003), advisory board member for Medical Malpractice Law & Strategy, and past editor of the Long-Term Care Litigation and the Pharmaceutical & Medical Device Law Bulletin newsletters. Recent publications include Julie A. Braun et al., Legal Issues in Long-Term Care in Principles of Geriatric Medicine & Gerontology (5th ed., William R. Hazzard et al., 2003). Ms. Braun chairs the legal subcommittee of the Food and Drug Administration's (FDA) hospital bed safety workgroup and is a co-investigator in an FDA-funded study exploring the legal liability issues of siderail use. She also is a co-recipient of a Borchard Foundation Center on Law & Aging grant, a former chair of the American Bar Association (ABA) Medicine & Law Committee, and former vice chair of the ABA Seniors' Issues Committee. Ms. Braun is admitted to the bar of the Supreme Court of Illinois, U.S. District Court for the Northern District of Illinois, Seventh Circuit Court of Appeals, and the Supreme Court of the United States.

What Professional Geriatric Care Managers Need to Know: A Nursing Home Update

By Julie A. Braun, J.D., LL.M.

with introduction by Marcie Parker, Ph.D., CFLE

This special theme issue of the *GCM Journal* looks at falls assessment and prevention in all settings, whether home- or community-based or in a long-term care settings. It is therefore important for professional geriatric care managers (PGCMs) to be aware of recent legislative and regulatory initiatives that affect their practices.

In the three brief pieces that follow, we see a rapid increase in litigation against nursing homes, raising concerns about quality of care for residents. In some states, there are thousands of pending lawsuits against nursing homes. While many of these lawsuits are warranted, in other cases, lawsuits against nursing homes as well as the physicians, nurses and staff such as CNAs who practice there are causing nursing homes to shut down. In some states, fewer and fewer physicians are willing to practice in nursing homes and as the facilities shut down there are increasingly less placement beds for the families who need them.

In the second piece, a recently completed Office of Inspector General (OIG) report shares ombudsman complaints about nursing homes.

PGCMs can use this information as one piece of the decision making process to help families contemplating where a loved one should live.

In the third piece, we see that in terms of nursing home quality, the prevalence of serious problems is declining but that enhanced oversight is still critically needed. We all know that services that are excellent one week can deteriorate next week with changes in administration, staff turnover, and squeezed budgets.

We ask you to read these three short pieces carefully and decide how they might affect your own GCM practice. As always, we try, in this journal, to provide you with theory, research and actual application/ implementation, so you will have an answer for the "So what?" question. How does this research influence, change or affect my practice? Let us know what you think.

Marcie Parker, Ph.D., CFLE, senior qualitative researcher with a large

healthcare firm in Golden Valley, Minnesota; Dr. Parker is incoming Chair of the *GCM Journal* Editorial Board.

We ask you to read these three short pieces carefully and decide how they might affect your own PGCM practice.

Rapid Increase in Litigation Against Nursing Homes Raises Concerns About Quality of Care For Residents

Professional geriatric care managers and others are witnessing an increase in litigation surrounding injuries received in the long-term care setting, especially in the context of pressure ulcers, dehydration and weight loss, *fall-related injuries* (the subject of this journal), improper use of physical restraints, medication errors, and sexual assault. Results of a Web-based survey examining nursing home litigation trends published in the March/April 2003 issue of *Health Affairs* reflect a surge in the number of nursing home claims handled in the past five years as well as significant increases in average recovery size. See David Stevenson & David Studdert, *Trends: The Rise of Nursing Home Litigation: Findings from a National Survey of Attorneys*, 22 *Health Affairs* 219-29 (Mar/Apr. 2003). Available for purchase at <<http://www.healthaffairs.org>>.

Harvard School of Public Health researchers David Stevenson and David Studdert base their analysis on responses of a national sample of 268 plaintiff and defense attorneys from 37 states who specialize in nursing home litigation. Most of the responses were from attorneys in Florida, Texas, and California, states with a large volume of nursing home residents. Although Florida and Texas have been home to the majority of litigation activity, states that reported increases in both claims volume and average recovery amounts included Arkansas, Georgia, Louisiana, and Oklahoma.

Attorneys surveyed were involved in litigating nearly 4,700 claims in the preceding 12 months and their firms handled 8,300 claims. The average recovery amount among paid claims, whether resolved in or out of court, was about \$406,000 per claim. The most striking finding about the dynamics of this litigation is that nearly 9 out of 10 plaintiffs received compensation. According to researcher David Studdert, "[t]his kind of payment rate is off the scale in the world of personal injury litigation, and

(continued on page 14)

What Professional Geriatric Care Managers Need to Know: A Nursing Home Update

(continued from page 13)

probably reflects a tremendous reluctance to bring this kind of claim before a jury.”

More than half the claims reported nationally were in Florida and Texas, and recovery amounts in these states were higher than the national average. Based on their analysis, the authors estimate compensation payments of \$2.3 billion to plaintiffs nationally, with claims in Florida and Texas accounting for \$1.1 billion and \$654 million, respectively. In Texas, punitive damages were significantly more common than elsewhere. Attorneys in Texas and Florida handled claims worth more than 15 percent of stateside nursing home expenditures.

Nursing home claims were largely focused in Florida, Texas, and a handful of other southeastern states, including Georgia. David Stevenson advises that is “[i]t’s unclear whether this phenomenon will become more widespread, or whether it will remain relatively concentrated [in the southeastern states].”

The survey also looked at other trends. It found that residents’ children are the chief catalyst behind more than 60 percent of claims and nearly half of all nursing home claims involved wrongful death or pressure ulcers or both. In Texas, the proportion of claims that alleged death and pressure ulcers were significantly higher than the national average; in Florida, the proportion of claims that alleged falls was significantly higher than the national average. A large proportion of the litigation involved chronic, long-stay residents.

Determining the extent to which litigation trends are related to poor quality care as opposed to other factors is difficult. “The litigation doesn’t seem to track an overall decline in nursing home quality,” Stevenson believes, “but this doesn’t

mean that individual claims brought by attorneys are inappropriate.”

Nursing Home Quality: Prevalence of Serious Problems, While Declining, Reinforces Importance of Enhanced Oversight

Case management takes many shapes and continues to evolve into new practice contexts. Thus, geriatric care managers should keep abreast of the recent reports concerning the quality of care in our nation’s nursing homes. According to a report released by the General Accounting Office (GAO) on July 17, 2003, the proportion of nursing homes with serious quality problems remains unacceptably high, despite a decline in the incidence of such reported problems. Actual harm or more serious deficiencies were cited for 20 percent or about 3,500 nursing homes during an 18-month period ending January 2002, compared to 29 percent for an earlier period. Fewer discrepancies between federal and state surveys of the same facilities suggests that state surveyors are doing a better job of documenting serious deficiencies and that the decline in serious quality problems is potentially real. Despite these improvements, the continuing prevalence of and state surveyor understatement of actual harm deficiencies is disturbing. For example, 39 percent of 76 state surveys from homes with a history of quality-of-care problems—but whose current survey found no actual harm deficiencies—had documented problems that should have been classified as actual harm or higher, such as *serious avoidable pressure sores, severe weight loss, and multiple falls resulting in broken bones and other injuries*.

Weaknesses persist in state survey, complaint, and enforcement activities. According to the Centers for Medicare and Medicaid Services (CMS) and states, several factors contribute to the understatement of serious quality problems, including poor investigation and documentation of deficiencies, limited quality assur-

ance systems, and a large number of inexperienced surveyors in some states. In addition, the GAO found that about one-third of the most recent state surveys nationwide remained predictable in their timing, allowing facilities to conceal problems if they chose to do so. Considerable state variation remains regarding the ease of filing a complaint, the appropriateness of the investigation priorities, and the timeliness of investigations. Some states attributed timeliness problems to inadequate staff and an increase in the number of complaints. Although the agency strengthened enforcement policy by requiring states to refer for immediate sanction homes that had repeatedly harmed residents, the GAO found that states failed to refer a substantial number of such facilities, significantly undermining the policy’s intended deterrent effect.

CMS oversight of state survey activities has improved but requires continued attention to help ensure compliance with federal requirements. While CMS strengthened oversight by initiating annual state performance reviews, officials acknowledged that the reviews’ effectiveness could be improved. For the initial fiscal year 2001 review, officials said they lacked the capability to systematically distinguish between minor lapses and more serious problems that required intervention. CMS oversight also is hampered by continuing database limitations, the inability of some CMS regions to use available data to monitor state activities, and inadequate oversight in areas such as survey predictability and state referral of homes for enforcement. Three key CMS initiatives have been significantly delayed—strengthening the survey methodology, improving surveyor guidance for determining the scope and severity of deficiencies, and producing greater standardization in state complaint processes. These initiatives are critical to reducing the subjectivity evident in current state survey and complaint activities.

(continued on page 15)

What Professional Geriatric Care Managers Need to Know: A Nursing Home Update

(continued from page 14)

Retrieve 104-page text of “Nursing Home Quality: Prevalence of Serious Problems, While Declining, Reinforces Importance of Enhanced Oversight” (GAO-03-561, July 15, 2003) from <<http://www.gao.gov/cgi-bin/getrpt?GAO-03-561>>.

Retrieve related 19-page testimony by Dara Corrigan, Acting Principal Deputy Inspector General, before the U.S. Senate Committee on Finance (July 17, 2003) from <<http://www.gao.gov/cgi-bin/getrpt?GAO-03-1016T>>.

OIG Report Shares Ombudsman Complaints About Nursing Homes

Professional geriatric care managers, among others, can use ombudsman complaint data to identify trends, issues, and concerns in institutional long-term care making them better advocates for their clients. In July 2003, the Office of Inspector General (OIG) published its findings using the most recent information available.

Background

Congress established the State Long Term Care Ombudsman Program in the *Older Americans Act Amendments of 1978*. The Administration on Aging (AoA) within the U.S. Department of Health and Human Services administers the program. Ombudsmen attempt to resolve problems of individual nursing home residents and to bring about changes to improve nursing home care at the local, state, and national levels. They help residents and their families understand and exercise rights that are guaranteed by federal and state laws.

The *Older Americans Act*, 42 USC § 3001-3058ee, requires states to collect ombudsman complaint data and for state ombudsman to report aggregate data to the AoA. In 1995, the AoA implemented the National Ombudsman Reporting System (NORS), an ombudsman complaint

reporting system, which consists of 128 complaint categories divided into five major groups.

Methodology

The OIG gathered data and information for 1996 through 2000 from NORS statistical reports, annual ombudsman narrative comments submitted with the NORS data, and interviews undertaken with state and local ombudsmen from Alabama, California, Connecticut, Maryland, Missouri, New York, South Carolina, South Dakota and Texas. These nine geographically diverse states represent a cross section of ombudsman programs from large urban areas to small rural communities and account for approximately 30 percent of the nursing home beds within the United States.

Report Findings

Nationally, the total number of nursing home complaints grew from approximately 145,000 in 1996 to approximately 186,000 in 2000. During the same period, the

number of complaints per 1,000 beds rose from 78.4 to 102.1. This corresponds to a 28 percent increase in the number of complaints and a 30 percent increase in the number of complaints per thousand beds.

Top Ombudsman Complaint Categories, 1996-2000

Complaints	1996 Total	1996 Rank	2000 Total	2000 Rank	Percent Growth 1996-2000
Accidents	6,661	1	7,675	2	15.2%
Request for Assistance	5,441	2	8,676	1	59.5%
Personal Hygiene	5,301	3	7,279	5	37.3%
Dignity, Respect-Staff Attitudes	4,882	4	7,351	4	50.1%
Care Plan	4,453	5	7,550	3	69.5%
Staff Shortage	4,352	6	6,625	6	53.0%
Physical Abuse	4,321	7	4,350	11	0.7%
Menu Quality	4,295	8	5,540	8	29.0%
Discharge, Eviction	4,110	9	5,762	7	40.2%
Personal Property	3,598	10	4,227	12	17.5%
Meds Administration	3,123	11	4,914	9	57.3%
Symptoms Unattended	3,196	12	4,617	10	44.4%

Complaint Categories with Largest Growth, 1996-2000

Complaint Growth 1996-2000	1996 Total	2000 Total	Percent
Staff Turn-Over	330	1,015	207.6%
Dehydration	1,122	2,219	97.8%
Infection Control	562	1,074	91.1%
Supervision	1,825	3,326	82.2%
Exercise Choice and/or Civil Rights	2,211	3,803	72.0%
Cleanliness, Pests	2,242	3,832	70.9%
Care Plan/Assessment	4,453	7,550	69.5%
Call Lights/Requests for	5,441	8,676	59.5%
Medications-Administration	3,123	4,914	57.3%
Staff Unresponsive, Unavailable	2,376	3,700	55.7%

What Professional Geriatric Care Managers Need to Know: A Nursing Home Update

(continued from page 15)

The most frequent complaints involved resident care such as a failure to respond to call lights or requests for assistance, accidents and improper handling of residents, lack of adequate care plans and resident assessments, inadequate administration of medications, unattended resident symptoms, and poor personal hygiene. Resident care complaints

grew 37 percent from 1996 to 2000 compared to a 21 percent growth for complaints involving resident rights (e.g., abuse, access to information and transfer and discharge issues).

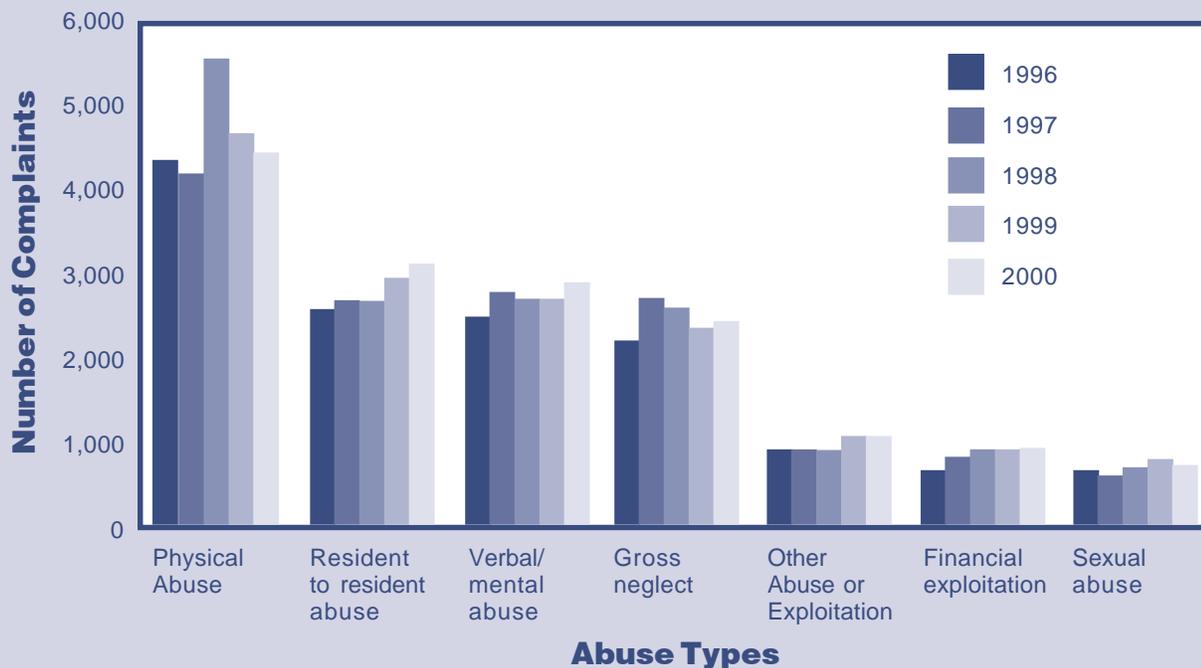
The NORS complaint category with the highest national growth was, not surprisingly, staff turnover with an increase of approximately 208 percent between 1996 and 2000.

The NORS complaint categories under the umbrella of abuse include physical abuse, resident-to-resident abuse, verbal/mental abuse, gross neglect, other abuse or exploitation, financial exploitation, and sexual

abuse. According to OIG findings, the number of abuse cases reported to NORS peaked in 1998 and have declined about 3 percent since then. The total for all reported abuse cases rose from 13,469 in 1996 to 15,501 in 1998, and declined to 15,010 in 2000. During that period, among seven types of abuse categories, physical abuse was the most common type reported.

Retrieve full text of Dep't Health & Human Servs., Office of Inspector General, "State Ombudsman Data: Nursing Home Complaints" (OEI-09-02-00160, July 2003) from <<http://oig.hhs.gov/oei/reports/oei-02-01-00600.pdf>>.

Types of Abuse Complaints, 1996-2000



Practical Fall Risk Assessment in Older Adults with Multiple Medical Problems and/or Chronic Disease

By Steven Charles Castle, M.D. & Dorene Opava-Rutter, M.D.

Reviewing Clinical Standards of Falls Risk Assessment

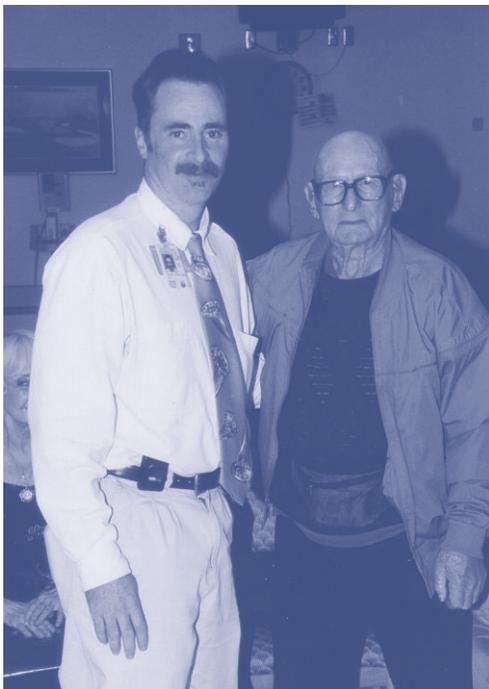
A number of controlled trials find that detecting a history of falls or change in gait and balance and performing a fall-related assessment likely reduces future falls when coupled with appropriate interventions (Rubenstein 2001). The Quality Indicators for Assessing Care of

Vulnerable Elders (ACOVE) project identifies six indicators in this domain (Rubenstein 2001). The ACOVE study relied upon a structured literature review and expert panel process (Shekelle 2001). **Table I** details ACOVE Project recommendations.

The six indicators of care processes detailed in **Table I** are judged sufficiently valid as indicators of quality care in the management of fall and mobility disorders for vulnerable elders defined as persons over 65 years of age with a greater likelihood of death or decline in function over a two-year period. Accordingly, a health care provider (e.g., geriatric care manager) who fulfills these criteria provides quality care, improves the chance of preventing a preventable fall, and reduces the risk of serious injury in non-preventable falls.

Taking a Falls History

It is important for health care providers to understand the natural human instinct to characterize a fall as an accident. Parties involved in a fall incident often are embarrassed and prefer to believe the fall "an accident." This misidentification of the event mistakenly implies that it will not recur and represents a significant clinical hurdle to overcome. A pioneer of geriatric medicine, Bernard



Steven Charles Castle, M.D., GCM Journal Guest Editor, and 98-year-old Benjamin Korb, one of Steve's fall prevention patients. Mr. Korb fought in the Aleutians during WWII and was among the first of our troops to encounter active resistance.

T A B L E I

Quality Indicators for Management & Prevention of Falls

1. Document Fall Inquiries Annually or More Frequently As Appropriate
 - Falls often are undetected
 - Risk of recurrence/injury is higher
 - Preventable components
 - Effectiveness of screening likely not tested
2. Evaluate for Balance and Gait Disturbance At Least Once
 - Abnormality often undetected
 - Clear increased risk of fall and progression of immobility
 - Case finding and assessment to detect mobility problems and their correction
3. Basic Fall Evaluation

IF: ≥ 2 falls in past yr. OR 1 fall with serious injury

THEN: Basic fall evaluation is defined as:

 - Medication review including identification of acute and chronic problems;
 - Physical examination (e.g., orthostatic vital signs, vision, gait and balance, lower extremity function);
 - Neurological exam;
 - Environmental assessment;
 - Summary of physician's impression
 - Detail recommended medications
 - Drug review (e.g., ascertain ongoing need and lowest effective dose)
4. Gait-Mobility and Balance Evaluation

IF: New or worsening ambulation, balance, mobility

THEN: Gait, mobility and balance evaluation within six months that results in diagnostic and treatment recommendations

BECAUSE: Use of assistive devices and exercise reduce likelihood of future falls and complications; however, assessment for need and proper use is required for optimal use. Indirect evidence relates the assessment component of programs with improved survival and function accompanied by less healthcare use.
5. Exercise and Assistive Device FOR Balance Problems

(continued on page 18)

(continued on page 18)

Practical Fall Risk Assessment in Older Adults with Multiple Medical Problems and/or Chronic Disease

(continued from page 17)

Isaacs, remarks that “the first step in preventing a fall is to fall yourself. Everyone is a potential faller; and everyone needs to abandon faith in

T A B L E I

(continued from page 17)

IF: abnormal balance/proprioception, or increased postural sway,

THEN: Evaluate for exercise and assistive device

BECAUSE: Balance problems contribute to falls risk and medication will reduce likelihood of fall

- Improves mobility-related tasks
- Improves balance if peripheral neuropathy/ vestibular abnormality detected
- Problem if impulsive, cognitive impairment

6. Exercise Prescription for Gait Problems and Weakness

IF: Problems with gait, weakness ($\leq 4/5$ manual muscle test, need to use arms) or decreased endurance

THEN: Offer exercise program

BECAUSE: Exercise improves or ameliorates risk factors, and reduces risk of falls and fall-related injuries.

- Decreased muscle strength is associated with functional gait impairment.
- 7 Randomized Clinical Trials - exercise on gait variables in elders.
 - 2- no effect of strength training on gait velocity.
 - 2- lower extremity strengthening improved velocity, endurance, stability.
 - 3- on walking-endurance program in community elders (mean age of 70 years), increase of ambulatory function between 5 and 15 percent after 8 to 12 weeks.

Adapted by authors from Rubenstein, L.Z. & Kenny, R.A. “Guideline for the Prevention of Falls in Older Persons.” *Journal of the American Geriatric Society* 49 (2001):664-672.

personal invulnerability” (Isaacs 1996). In the authors’ experience, older adults amazingly possess little or no insight into their own invincibility despite multiple falls and recurrent balance problems. This is particularly true where a dementia-related illness limits a clinician’s ability to obtain an accurate falls history. In this situation, the authors recommend using a structured approach to acquiring a history, either by patient/ caregiver self-report or through patient interview.

Another challenging aspect in falls assessment involves the complexity of falls and their inherent multi-factorial nature. Falls often are not caused or triggered by the same factor. Accordingly, scrutinize each falls incident along with any accidents or events described as slips, stumbles, trips, or near falls. Dr. Bernard Isaac focuses on two inquiries when reviewing a fall incident (Isaac 1996). First, what caused the displacement and second what prevented its correction (Isaac 1996). If it is impossible to answer these two questions, shift attention to the intended activity and relate it to the patient’s gait and balance problems.

Reviewing the Actual Falls Event

Analysis relating to the actual falls event varies with some overlap depending on the specific health care setting (e.g., long-term, acute or home care) and the older adult’s unique characteristics. For example, Dr. Rein Tideiksaar, Senior Vice President, ElderCare Companies, Inc. (Philadelphia, PA), employs a practical pneu-monic (Tideiksaar 1998):

S Symptoms experienced at time of fall.

P Previous number of falls or near falls.

L Location of falls.

A Activity engaged in or attempted at time of fall.

T Time (hour) of day.

T Trauma (e.g., physical or psychological) associated with falls.

Remember to ask questions from the perspective of a practical classification of medical conditions that contribute to falls and to tackle

foundational issues which, if not addressed, may increase the exposure or risk of fall or injury associated with a fall. In general, these aspects tend to be more or less preventable ones that by their nature compound inherent gait and balance deficits.

Severe, irreversible aspects of falls shift the fall management approach toward injury preventive or protective strategies. For instance, always scrutinize the role medication(s) may play in the fall event(s). Queries might include, among other possibilities:

- Do prescription or over-the-counter medications contribute to falls and/or gait instability?
- How effective or necessary are the medications being taken in relationship to the intended prescribed use?
- Do the medications have a low, medium or high risk of contributing to a patient’s fall and/or fall risk?
- What would happen if the medication(s) is/are stopped?
- What might be the impact of a dose change? Can an alternative agent be prescribed?

It is common for older adults who experience recurrent falls to remain on medications that contribute to the fall incident(s). This presents clinical challenges as well as potential legal liability, especially in the long-term care setting. Therefore, assess patients quarterly or sooner if there is a change in condition. Failure to consider whether medications contribute to an older adult’s fall(s) is a risky practice that may expose the health care provider and the institution to legal liability.

Classifying Medical Conditions that Contribute to Falls

The authors rely upon and recommend a practical classification of medical conditions that contribute to falls and have established a diagnosis in over 90 percent of the cases referred to their falls prevention clinic. Clinical studies demonstrate that even with

(continued on page 19)

Practical Fall Risk Assessment in Older Adults with Multiple Medical Problems and/or Chronic Disease

(continued from page 18)

thorough neurocardiac assessment, approximately 20 percent of falls do not have a clear etiology and 20 percent have multiple etiologies (Lawson 1999), suggesting that the practical approach described in this article lends itself to more individualized interventions.

Cardiovascular Causes

Diagnoses: Carotid sinus hypersensitivity, vasovagal, orthostatic hypotension.

Common Symptoms: Feeling light headed upon standing, feeling like passing out if you do not sit down, symptoms after prolonged standing, any other common cardiac symptoms.

Nuances: Older adults are prone to dysregulation of the autonomic nervous system and hence get excessive waves of parasympathetic tone that normally follow sympathetic outpouring in a flight or fight arousal, but can occur on a lesser level of stimulation. The concept of excessive parasympathetic tone following sympathetic is why people become incontinent when excessively scared. The scare produces a large outpouring of sympathetic tone (i.e., tightens sphincters and reduces detrusor tone which maintain continence) followed by an increased parasympathetic tone to maintain autonomic regulation (i.e., diminished sphincter with contraction of detrusor resulting in incontinence if strong enough parasympathetic tone). Thus, autonomic dysregulation results in excessive parasympathetic tone following mild sympathetic stimulation, causing a drop in blood pressure and a drop in heart rate (Tea 1996). Prolonged tilt table testing or stressing a response with acute administration of a diuretic or nitroglycerin may uncover this (Kenny 2000). There is a spectrum of Parkinsonian patients, called multiple system atrophy, with multiple contributors to gait and balance problems including cardiovas-

cular causes that can be very complex to manage (Goldstein 2000). In this circumstance, refer patients to an internist, geriatrician, neurologist or cardiologist with experience in managing neurocariogenic syncope/near syncope.

Vertigo, Abnormal Sensation of Motion

Diagnoses: Peripheral causes include inner ear disorders, including benign positional vertigo, vestibular neuronitis, or Meniere's disease. Central causes are from poor circulation to the posterior aspects of the brain, including vertebral-basilar insufficiency, ischemic lesion to the brainstem or basal ganglion, and migraine headaches.

Common Symptoms: Symptoms include the classic room-spinning or the feeling of being pulled to one side or downward, sometimes referred to as impulsion. Acute care and emergency room personnel witness these symptoms more often when compared to falls referral clinics or long-term care.

Nuances: First, there are some individuals who have dizzy symptoms associated with panic attack symptomatology. Relaxation therapy with vestibular training or desensitization is described in the literature and anecdotally has resulted in dramatic improvement in a few cases (Cowand 1998). Second, peripheral vestibular causes will have rotational vertigo which occurs often a minute or so after the Dix-Hall Pike maneuver, and this suppresses on repeated testing unlike central causes. Benign positional vertigo tends to be intermittent over days, but persists for a couple of weeks, while other peripheral causes are more intense over a shorter duration (Heaton 1999; Hoffman 1999).

Dysequilibrium

Diagnoses: Peripheral neuropathy (damage from diabetes, alcohol vitamin deficiencies and other causes); Parkinsonism/Parkinson's disease, multiple system atrophy, cerebral basilar degeneration, subcortical white matter ischemia (small strokes in the deep parts of the brain),

cervical spondylosis (alignment problems of vertebrae in the neck), bilateral carotid artery stenosis, basilar artery migraine (spasm of artery to posterior brain), or lumbar spinal stenosis (narrowing of spinal canal with impingement on the nerves).

Common Symptoms: Symptoms include impairment in any loop of sensory/motor response and consequently an unawareness of being off balance, and the inability to correct when balance is lost. Patients lack sensation (e.g., dizziness or light headedness) and may find themselves on the ground quite perplexed. This condition may feature earlier diagnoses of drop attacks where patients usually can get right back up unless injured. Patients may complain about comments from family, friends or even strangers that they look drunk when they walk but are not.

Nuances: The effect on gait and balance of common peripheral neuropathies usually are not appreciated by non-physiatrists. Other common problems found in some previously active individuals include the presence of spinal stenosis, where symptoms are worse with walking down hill or down steps. This category has been the largest group in the authors' experience.

Neuromuscular/Joint Weakness or Pain

Diagnoses:

Nerve – Radiculopathy (pinched nerves), peripheral neuropathy, spinal stenosis, or cerebral vascular accident (stroke).

Muscular – Myopathy (inflammation and breakdown of muscles), deconditioning (loss of strength from lack of use), or constitutional (whole body) symptoms (e.g., fever, hypoglycemia).

Joint – Arthritis, bursitis (inflammation of the joint capsule), deformity, or contractures (frozen joints).

Foot/Shoes/Improper Adaptive Equipment

Symptoms: The typical symptom is the older adult's knee "giving way"
(continued on page 20)

Practical Fall Risk Assessment in Older Adults with Multiple Medical Problems and/or Chronic Disease

(continued from page 19)

or buckling usually when going down stairs or stepping off of a curb. Many persons can relate to feeling weak in the knees when they have a high fever, and this probably contributes to falls in the acute care setting. Intermittent hypoglycemia should be considered as well but studies to better define are lacking. Additionally, patients who catch their toes and trip or stumble may have hip, knee, or ankle weakness. Lack of endurance or fatigue also may contribute to the fall.

Nuances: Manual muscle testing does not correlate well with actual impact on gait and balance. Subtle weakness easily can be missed. Grip strength may provide some global sense of weakness and/or deconditioning. Performance measures may provide a more objective measure, such as the timed get up and go test (i.e., patient arises from a chair, walks 10 feet, turns around and returns to sitting; normal time is about 14 seconds).

Foundation Issues that Worsen Fall Risk and Medical Problems That Increase Exposure to Falls

Vision & Hearing

Vision and hearing problems represent obvious problems that unfortunately are easily overlooked. While preventing falls by correction is assumed, it has not been clearly demonstrated. However, in certain individuals it could make a difference and, therefore, should be included in the assessment and care plan.

Foot Care and Wear

Likewise, footwear, foot deformities and nail care should be included in this category. Examine the feet of anyone with clearly identified gait impairment.

Sleep Disorders

An evaluation of sleep disorders is critical given that obstructive sleep apnea (loud snoring with periods of arrested breathing), restless leg syndrome/periodic leg movements (excessive, uncontrolled movements of legs during sleep) and sedative hypnotic use (sleeping pills) are common and improved management may prevent falls. Anyone who has experienced a disrupted night of sleep may attest to catching their toes and can therefore imagine the impact on someone with more impaired gait and balance. Part of the pathology also may relate to depression and dementia (discussed below), and likely involves impaired visuomotor processing. Another aspect of sleep disorders is getting up at night and meandering in a semi-alert state with inadequate lighting. One of the authors, Dr. Steven Charles Castle, finds this less of a problem than expected and must be due to patients' increased vigilance and attention.

Urinary Frequency and Incontinence

Urinary frequency, especially when linked with urgency, may result in increased exposure to falls. Clinical studies demonstrate the association of urinary incontinence (bladder control problems) with falls, but only if tied to urgency (Brown 2002). Detailed assessment is critical for patients with urinary frequency, especially when associated with urgency needs, to ameliorate symptoms and reduce falls risk exposure. This is common in acute care where a connection exists between frequency of urination and many diseases and disease management. In health care institutions, careful attention to toileting schedule is crucial, especially in persons with gait impairment and urgency.

Remember that not all nocturia (urination at night) is related to prostatic problems, and may instead be symptomatic of a sleep disorder. Consider, for example, an older adult who awakens due to the sleep disorder and notices that he or she has to go to the bathroom. In this instance, it is inappropriate to

attribute the disrupted sleep to nocturia (Pressman 1996) when a careful sleep history and referral for sleep studies is proper.

Osteoporosis

Another issue to consider involves osteoporosis. If someone is identified as a falls risk, he or she should be assessed for osteoporosis and, if appropriate, be considered for calcium and vitamin D3 supplementation (Papadimitropoulos 2002). Osteoporosis occurs in men as well, and testosterone deficiency has been identified as a risk factor for hip fractures (Jackson 1992).

Psychiatric Problems

Various studies exploring falls or fall risk factors identify depression and anxiety as associated factors. The fear of falling is well reported and leads to the downward spiral of deconditioning with further impairment in gait and balance (Tideiksaar 1998; Tinetti 1994). The interaction of anxiety, depression and dementia, even without the added impact of appropriate and inappropriate medications, overlap and significantly impact the risk of falling. Although beyond the scope of this article, know that there is a bottom line impact on visuomotor functioning that leads to clearly identified decline in gait and balance performance, which older individuals are more likely to manifest (Brown 2000; Draganich 2001; Whooley 1999).

Case series devoted to dementia and stroke report depression as an independent factor associated with falls (Jorgensen 2002; Lyketsos 1997). It is unclear; however, how much of the association between depression and anxiety have direct or indirect effects on fall risk. Even in younger individuals, inducing fear of falling by doing toe raises at elevation near the edge of a platform modifies anticipatory postural control (Adkin 2002). Part of the mechanism of these changes may be associated with hypocapnia, or low carbon dioxide due to hyperventilation (Clague 2000). The other caveat is that certain types

(continued on page 21)

Practical Fall Risk Assessment in Older Adults with Multiple Medical Problems and/or Chronic Disease

(continued from page 20)

of dementia, such as Dementia with Lewy bodies (i.e., fluctuation in symptoms, Parkinsonian stiffness, and hallucinations) have a ten-fold higher incidence of falls than Alzheimer's dementia, again likely due to specific deficits in visumotor processing which could be tested directly (Imamura 2000).

Environmental Issues

Environmental modifications are an important, but complex issue that may be tied to finances, personal preferences, adaptations, and the ability to get work completed. Several excellent publications offer guidance in this area (AARP 2000; CDC NCIPC 1999). Further, findings from a recent prospective study that completed a room by room assessment of 13 potential slip or trip hazards of 1103 persons greater than age 72, and which controlled for vision, balance/gait and cognition did not support an association between environmental hazard and nonsyncopal falls (Gill 2000).

Other practical matters to consider include whether the older community dwelling adult takes a bus for transportation, carries heavy objects, or has pets. A British study advises that elder community-dwelling residents who have dypnea walking up a hill, live alone, care for pets, or carry heavy packages have a higher incidence of falls (Bath 2000). Devising strategies on changes in lifestyle are extremely difficult, but likely to impact falls and fall-related injury.

Recommended Physical Examination

The type of physical examination depends on the health care setting and whether it is a risk assessment for falls or a post-fall assessment. See **Tables II and III**. The quality indicator outlined in the ACOVE study suggests performing a basic fall evaluation when a vulnerable elder reports two or more falls in the past year or

has a significant injury from a fall. The evaluation seeks to identify any treatable cause and highlight the relationship between fall event and medications (e.g., use of sedatives or over treatment with antihypertensives) or the presence of a subacute medical condition such as postural hypotension, metabolic disorders (including hypo or hyperglycemia), infections, dehydration or cardiac arrhythmia or progression of heart failure (Rubenstein 2001A; Rubenstein 2001B).

Steven Charles Castle, M.D., fallsprevention@charter.net, has developed, tested and replicated falls prevention programs across the continuum of care and throughout the country. Dr. Castle is a nationally recognized expert in standards of long term care and medico-legal perspectives in long-term care and assisted living as well as interdisciplinary training in falls prevention. As president and Chief Executive Officer of ElderCare Experts (www.eldercare-experts.com), he developed a blended-interdisciplinary, train-the-trainer program targeting education of frontline staff for long-term care and assisted living facilities. Using a structured approach and components, an individual's fall risk is assessed in the context of practical interventions. This unique approach focuses on how medical conditions and/or medications interact with inherent fall risk, encourages participation by frontline staff, and enhances communication with doctors and therapists resulting in improved follow up of fall risk factor adjustment as well as better communication about the plan of care and outcomes with patients/residents and their families. The goal is to provide higher quality care that reduces liability and facilitates resident independence, well being and success towards aging in place.

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treatment of spine, shoulder and knee disorders. She also performs electromyographic (EMG) and nerve conduction studies, for which she is board-eligible. In addition, Dr.

(continued on page 22)

TABLE I

Recommended Evaluation of a Fall in Emergency/Urgent Care

History:

- Review prescription and over-the-counter medications and inquire about any recent changes in prescribing as well as patient compliance with medication regimen
- Location and situation associated with fall
 - Intended activity
 - Agitation and/or confusion
 - Long lie
 - Specific symptoms (e.g., cardiovascular, vertigo, dysequilibrium, weakness, mixed, none, foundation issues).
- Current and past activity level, falls, slips, trips, stumbles in previous three months
- Change in condition - confusion, seizure, pass out, cardiopulmonary status, melena, urination (e.g., frequent or diminished)
- Social history such as person's alcohol use, their ability to live independently (e.g., perform activities of daily living), complex social history (e.g., elder abuse or neglect)

Physical Exam:

- Vital signs with orthostatic measures as tolerated
- Hydration and nutrition status
- Mental status (e.g., orientation, naming, calculation, construction)
- Evidence of trauma (e.g., head, spine, ribs, pelvis, hips, extremity) or long lie
- Rales, gallup or murmur, carotid bruits
- Gait and balance, get up and go test, observational gait

Adapted by authors from Baraff, L.J. et al., "Practice Guidelines for the ED Management of Falls in Community-Dwelling Elderly Persons." Ann Emerg Med. 30, no.4 (Oct. 1997):480-489.

Practical Fall Risk Assessment in Older Adults with Multiple Medical Problems and/or Chronic Disease

(continued from page 21)

Opava-Rutter holds privileges as an Attending Physician at the VA Medical Center at West Los Angeles (GLAHS) with research and clinical interests in fall prevention in the elderly. She also has held positions at the VA as

TABLE III

Basic Fall Evaluation

- History of fall circumstance, medication, acute or chronic medical problems, and mobility problems (including rate of change).
- Orthostatic vital signs: Establish resting value after 10-15 minutes. Look for drop in systolic ≥ 20 or diastolic ≥ 10 mmHg within 3 minutes of change in position (measure immediately, then next at one minute and two minutes), increase in pulse is NOT required and suggests autonomic dysfunction if drop in blood pressure and no increase in pulse.
- Evaluation of vision (i.e., acuity, gross confrontation, depth perception).
- Gait & Balance: Timed get up and go test, observe balance, symmetry, path deviation, stride length and height, base of support, ability to turn. Test balance with eyes open, eyes closed, with head turning, and on foam.
- Lower extremity function, foot deformity, nail condition.
- Neurologic evaluation includes mental status, strength, proprioception (number correct/five attempts with each toe), light touch, and cerebellar function.
- Environmental assessment.
- Diagnostic impression, need for additional testing, therapeutic recommendations.

Adapted by authors from Rubenstein, L.Z. & Kenny, R.A. "Guideline for the Prevention of Falls in Older Persons." *Journal of the American Geriatrics Society* 49 (2001):664-672.

medical director of the Wellness Program, Cardiac Rehabilitation, and the Gait Laboratory. Recently, she participated in a two-year clinical initiative through the VA to develop a fall prevention continuum of care from the acute, inpatient setting to an outpatient falls prevention clinic. She lectures extensively in fall prevention and the development of a multidisciplinary fall prevention clinic and frequently on the rehabilitation of amputations in addition to other rehabilitation topics.

References

AARP. "Fixing to Stay." (2000). Available at <<http://www.aarp.org>>.

Adkin, A.L., Frank J.S., Carpenter, M.G., Peysar, G.W. "Fear of Falling Modifies Anticipatory Postural Control." *Experimental Brain Research* 143, no.2 (Mar. 2002):160-170.

Bath, J.P.A., Pendleton N., Morgan K., Clague J.E., Horan M.A., Lucas S.B. "New Approach to Risk Determination: Development of Risk Profile for New Falls among Community-Dwelling Older People by Use of a Genetic Algorithm Neural Network (GANN)." *Journal of Gerontology Series A: Biological and Medical Sciences*, 55, no. 1 (Jan. 2000):M17-21.

Brown, L.A., Gage, W.H., Polych M.A., Sleik, R.J., Winder, T.R. "Central Set Influences on Gait: Age-Dependent Effects on Postural Threat." *Experimental Brain Research* 145, no.3 (Aug. 2002):286-296.

Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control (NCIPC) Fact Sheet (1999). "A Home Fall Prevention Checklist for Older Adults."

Clague, J.E., Petrie, P.J., Horan, M.A. "Hypocapnia and its Relation to Fear of Falling." *Arch Phys Med Rehab* 81, no.11 (Nov. 2000):1485-1488.

Cowand, J.L., Wrisley, D.M., Walker M., Strasnick, B., Jacobson, J.T. "Efficacy of Vestibular Rehabilitation." *Otolaryngology - Head & Neck Surgery* 118, no.1 (Jan. 1998):49-54.

Draganich, L.F., Zacny, J., Klawfta, J., Karrison, T. "The Effects of Antidepressants on Obstructed and Unobstructed Gait in Healthy Elderly People." *Journal of Gerontology Series A: Biological and Medical Sciences* 56A, no. 1 (Jan. 2001):M36-M41.

Gill, T.M., Williams, C.S., Tinetti, M.E. "Environmental Hazards and the Risk of Nonsyncopal Falls in the Homes of Community-Living Older Persons." *Medical Care* 38, no.12 (Dec. 2000):1174-1183.

Goldstein, D.S., Holmes, C., Li, S.T., Bruce, S., Metman, L.V. "Cardiac Sympathetic Denervation in Parkinson Disease." *Ann. Intern Med* 133(2000):338-347.

Heaton, J.M., Barton, J., Ranalli, P., Tyndil, F., Mai, R., Rutka, J.A. "Evaluation of the Dizzy Patient: Experience from a Multidisciplinary Neurotology Clinic." *Journal of Laryngology & Otolaryngology* 113 (Jan. 1999):19-23.

Hoffman, R., Einstadter, D., Kroenke, K. "Evaluating Dizziness." *American Journal of Medicine* 107, no.5 (Nov. 1999):468-478.

Imamura, T., Hirono, N., Hashimoto, M., Kazui, H., Tanimukai, S., Takahara, A., Mori, E. "Fall-Related Injuries in Dementia with Lewy Bodies (DLB) and Alzheimer's Disease." *European Journal of Neurology* 7, no.1 (Jan. 2000):77-79.

Isaacs, B. "The Prevention of Falls in Older People." In *Falls, Gait and Balance Disorders in the Elderly*, edited by LaFont, C. 13-25. New York: Springer, 1996.

(continued on page 23)

Practical Fall Risk Assessment in Older Adults with Multiple Medical Problems and/or Chronic Disease

(continued from page 22)

Jackson, J.A., Riggs, M.W., Spiekman, A.M. "Testosterone Deficiency as a Risk Factor for Hip Fractures in Men: A Case-Control Study." *American Journal of Medical Sciences* 304, no.1 (July 1992):4-8.

Jorgensen, L., Engstad, T., Jacobsen, B.K. "Higher Incidence of Fall in Long-Term Stroke Survivors than in Population Controls: Depressive Symptoms Predict Falls after Stroke." *Stroke* 33, no.2 (Feb. 2002):542-547.

Kenny, R.A., O'Shea D., Parry S.W. "The Newcastle Protocols for Head-Up Tilt Table Testing in the Diagnosis of Vasovagal Syncope, Carotid Sinus Hypersensitivity, and Related Disorders." *Heart* 83, no.5 (May 1, 2000):564-569.

Lawson, J., Fitzgerald, J., Birchall, J., Aldren, M.A., Kenny, R.A. "Diagnosis of Geriatric Patients with Severe Dizziness." *Journal of the American Geriatrics Society* 1999;47:12-17.

Lyketsos, C.G., Steele, C., Baker, L., Galik, E., Kopunek, S., Steinberg, M., Warren, A. "Major and Minor Depression in Alzheimer's Disease: Prevalence and Impact." *Journal of Neuropsychiatric Clinical Neurosciences* 9, no.4 (Fall 1997):556-561.

Papadimitropoulos, E., Wells, G., Shea, B., Gillespie, W., Weaver, B., Zytaruk, N., Cranney, A., Adachi, J., Tugwell, P., Josse, R., Greenwood, C., Guyatt, G. "The Osteoporosis Methodology Group and The Osteoporosis Research Advisory Group. Meta-Analyses of Therapies for Postmenopausal Osteoporosis. VIII: Meta-Analysis of the Efficacy of Vitamin D Treatment in Preventing Osteoporosis in Postmenopausal Women." *Endocrine Reviews*. 23, no. 4 (Aug. 2002):560-569.

Pressman, M. R., Figueroa, W. G., Kendrick-Mohamed, J., Greenspon, L. W., Peterson, D. D. "Nocturia: A Rarely Recognized Symptom of Sleep Apnea and Other Occult Sleep Disorders." *Archives of Internal Medicine* 156, no.5 (Mar. 11, 1996):545-550.

Rubenstein, L.Z., Kenny, R.A. "Guideline for the Prevention of Falls in Older Persons." *Journal of the American Geriatric Society* 2001A;49:664-672.

Rubenstein, L.Z., Powers, C.M., MacLean, C.H. "Quality Indicators for the Management and Prevention of Falls and Mobility Problems in Vulnerable Elders." *Ann Intern Med* 2001B:135:686-693.

Shekelle, P.G., MacLean, C.H., Morton, S.C., Wenger, N.S. "Assessing Care of Vulnerable Elders: Methods for Developing Quality Indicators." *Ann Intern Med* 2001:135:647-652.

Tea, S.H., Mansuorati, J., L'Heveder, G., Mabin, D., Blanc, J.J. "New Insights into the Pathophysiology of Carotid Sinus Syndrome." *Circulation* 93, no.7 (Apr. 1, 1996):1411-1416.

Tideiksaar, R. *Falls in Older Persons, Prevention and Management* (2ded.). Baltimore, MD: Health Professions Press, Inc, 1998.

Tinetti, M.E., Mendes de Leon, C.F., Doucette, J.T., Baker, D.I. "Fear of Falling and Fall-Related Efficacy in Relationship to Functioning among Community-Living Elders." *Journal of Gerontology Biological and Medical Sciences* 49, no.3 (1994):M140-M147.

Whooley, M.A., Kip, K.E., Cauley, J.A., Ensrud, K.E., Nevitt, M.C., Browner, W.S. "Depression, Falls, and Risk of Fracture in Older Women." *Arch Intern Med* 159, no.5 (Mar. 8, 1999):484-490.

Footwear & Falls

By Julie A. Braun, J.D., LL.M., Guest Editor

No experimental studies of footwear examine falls as an outcome. However, some trials report that specific footwear features influence balance and sway in older adults. An appropriate footwear intervention may improve balance and gait tasks in older women, for example. Better results in functional reach and timed mobility tests occurred when female subjects aged 65 to 93 years wore walking shoes as compared to being barefoot. Further, static and dynamic balance among women aged 60 to 89 years were better in low-heeled, walking shoes versus high-heeled shoes which constituted a balance hazard. In men, foot position awareness is related to stability and declines with advancing years. In men, stability is best with high mid-sole hardness or low mid-sole thickness and static balance is best in hard-soled, low resistance shoes. In older men and women, inadequate casual footwear may contribute to slipping accidents over a range of surfaces (in both dry and wet conditions) such as bathroom tile, concrete or vinyl flooring.



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