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Advanced Dementia in Long-Term Care: Avoiding the Pitfalls of Fall Prevention

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Falls are the leading cause of injury in adults 65 years and older, and complications from falls are among the leading causes of death in this age group (1). In 2015, direct medical costs from fatal and non-fatal falls in older adults totaled $32 billion in the United States (2). In long-term care facilities, the falls incidence is reported to be 1.5 falls/bed/year (3), which translates to a rate of 2.6 million falls per year in long-term care facilities (4). Fall-related injuries are the leading cause of potentially preventable emergency department visits for nursing home residents (5), and of hospitalization for those with dementia (6). To date, fall prevention programs in the form of fall-risk profiling, nursing interventions, clinical trials, and insurance payment withholds have not decreased the incidence of this serious public health problem nationally (7). Moreover, there are no effective preventive or management strategies for falls in the nursing home setting.

In this issue of the *American Journal of Geriatric Psychiatry*, Laboni and colleagues highlight characteristics of advanced dementia which predispose patients to be at increased risk for falls. Patients with behavioral and psychological symptoms of advanced dementia are at especially high risk: psychomotor agitation combined with loss of judgment results in a scenario of “a fall waiting to happen,” yet the medications used to decrease agitation have themselves been associated with increased rates of both falls and injury (8). The authors propose viewing falls in patients with advanced dementia as an indicator of a stage of illness calling for a palliative approach to care. What does a palliative care approach to falls look like? Similar to the palliative care approach to other conditions associated with advanced dementia, it involves first and foremost clarifying, usually with family, the patient’s preferences and goals of care. It involves adequate pain management and tailoring the medication regimen to maximize comfort. It does not entail use of physical restraints or bed alarms, which in some studies have been associated with *increased* rates of injury and other adverse events (7). We agree with the authors that the current focus on immobilizing and sedating nursing home residents with dementia to prevent falls has led to many unintended consequences, and diminished quality of life in many cases.

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Thus, Laboni and colleagues have identified a highly important and clinically relevant area for the care of long-term care residents with advanced dementia. We agree with the authors that not all falls in this population are preventable, and that behavioral problems, frailty, and severe cognitive impairment are all important risk factors for falls. Moreover, we agree that there is no convincing evidence that the current approach to fall prevention is appropriate or effective. We propose, however, that the palliative care approach described by the authors be instituted only after a careful medical assessment has ruled out treatable causes. For some clinicians, palliative care is equated with end-of-life care, and preventive or reversible factors would not be sought and addressed using a palliative approach. All too often, however, falls are the harbinger of an acute illness or delirium, often due to reversible factors —such as medications, infections, dehydration, or metabolic derangements—that can be readily addressed even in an advanced dementia population. We strongly recommend that a medical evaluation should still occur for these reversibility factors, where straightforward interventions are often effective.

We further agree with the authors that the ideal approach to falls in this patient population should be person-centered, humanistic, and consonant with the preferences and priorities expressed by the patient and their family members. However, for the reasons described above, we recommend referring to this approach as a "person-centered, humanistic approach," rather than "palliative care."

The case examples presented in this article focus on the pharmacologic management of agitation and pain. Deserving of equal consideration are many evidence-based *nonpharmacologic* approaches which can be highly effective and should be attempted prior to pharmacologic interventions which may unintentionally exacerbate decline or prompt the onset of new symptoms. In Case 1, sedation resulting from both hydromorphone and lorazepam may have hastened the patient's transition to a wheelchair-bound, non-ambulatory condition. Discussion with family and agreement á priori about goals of care, such as assuring agreement about a non-ambulatory status, are critical steps in a person-centered, humanistic approach. Nonpharmacologic strategies which might also be employed include purposeful rounding, therapeutic activities, massage, heat and ice packs, and caregiver training (See Table). In Case 2, sedation with both methotrimeprazine and opioids resolved the patient's agitation, but may have hastened the patient's demise through worsening delirium. Again, both use of nonpharmacologic approaches and advance discussion with the family to assure their concordance with this approach are crucial.

Clinicians caring for persons with advanced dementia in long-term care face a major quandary in balancing quality of life and autonomy, enhancing safety, and avoiding unintended consequences of reducing mobility to prevent falls. Recognizing these challenges, we recommend consideration of a person-centered, humanistic approach involving a sequential strategy (See Table) of establishing patient and family preferences; environmental changes; evaluation of reversible etiologies; nonpharmacologic management approaches including purposeful rounding, therapeutic activities, massage, music, and relaxation strategies; avoidance of physical restraints and bed alarms; and reserving pharmacologic approaches for severe agitation and pain in accordance with the goals for care. Through such a holistic approach, alignment with patient and family preferences can

be achieved, readily reversible issues can be addressed, humanistic nonpharmacologic approaches can be implemented, and quality of life and dignity can be sustained and enhanced.

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Table.

Approach to evaluation and management of falls for persons with advanced dementia in long-term care

Strategy	Involvement
Preferences: á priori discussion to establish goals of care and priorities of patient and family • Regular, ongoing communication with patient and family	Patient, family, care team
Environmental strategies: lower beds, padding on floor, arm supports/rails	Care team
Evaluation: targeted search for readily reversible etiologies, such as medications, infection, metabolic derangements, dehydration, agitation	Care team
Management: Nonpharmacologic approaches *	Patient, family, care team
• Purposeful (Hourly) rounding	
• Management of psychomotor agitation: therapeutic activities, relaxation, massage, music, rocking chairs, caregiver/family training	
• Management of pain/discomfort: heat/cold, massage, relaxation	
• Avoid physical restraints, bed/chair alarms, bedrails	
Management: Pharmacologic approaches	Care team
• Reserve sedation for severe agitation, used in conjunction with intensive nonpharmacologic approaches (as above). SSRI recommended as first-line treatment.	
• Pain: use around-the-clock acetaminophen, lidocaine patches, and other opioid sparing approaches where possible	

SSRI = Selective Serotonin Reuptake Inhibitor

* Evidence-based nonpharmacologic approaches for delirium and fall prevention in dementia patients in long-term care can be found at: www.hospitalelderlifeprogram.org and in the following references: Boockvar KS et al. J Am Geriatr Soc. 2016; 64:1108–1113; Kolanowski A et al. J Am Geriatr Soc 2016; 64:2424–2432.