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NEWSLETTER

The Importance of Mobilizing Older Adults

The 2005 Institute of Medicine report highlighted the prevalence of life-threatening, hospital acquired conditions. In response, Congress authorized the Centers for Medicare and Medicaid Services (CMS) to implement payment changes intended to incentivize improvements in patient safety. Effective October 2008, Medicare no longer reimburses hospitals the higher-paying DRG for 8 hospital-acquired conditions, one of which is fall related trauma. This change has produced the desired effect of focusing attention on the problem of inpatient falls. However, geriatricians are concerned that efforts to prevent falls can have unintended consequences eroding two decades of evidence regarding the importance of mobilizing older adults and potentially causing a resurgence in the use of restraining devices.¹ Scrutiny regarding fall rates can stimulate, rather than discourage, a tendency toward leaving patients settled in a bed or recliner. The detrimental effects of immobility for older adults have been repeatedly reported in the literature since at least 1944,² as Creditor reviewed in 1993.³

“Usual aging is often associated with functional change, such as a decline in muscle strength and aerobic capacity; vasomotor instability; reduced bone density; diminished pulmonary ventilation; altered sensory continence, appetite and thirst; and a tendency toward urinary incontinence. Hospitalization and bed rest superimpose factors such as enforced immobilization, reduction of plasma volume, accelerated bone loss, increased closing volume, and sensory deprivation. Any of these factors may thrust vulnerable older persons into a state of irreversible functional decline.”

Those findings are reinforced by recent research testing the impact of bed rest on *healthy* older adults. After screening and baseline assessments, healthy community dwelling men and women, average age of 67 (range 60–85) participated in 10 days of continuous bed rest in clinical research facilities. Given a normal diet they performed their basic activities (e.g., eating, bathing) in bed except for using a bedside commode or when transported to the bathroom by wheelchair. Prophylactic measures included use of compression stockings and sequential compression devices, active ankle plantar- and dorsiflexion intermittently each day, and passive range of motion of the lower extremities three times per day.

The principal findings were that after 10 days of bed rest these healthy older adults experienced: a statistically significant decrease in aerobic capacity equivalent to nearly 10 years of aging and; a substantial loss of lower extremity strength measured as flexion, extension and stair ascent power. The authors observed that the magnitude of decline suggests that older adults experience a more global loss of lower extremity strength than younger people previously studied. Furthermore, after the period of bed rest, continued observation revealed significant sequela: these “healthy” participants’ voluntary physical activity decreased and the percent of time spent totally inactive significantly increased. Thus we have further detail regarding the deleterious effect of bed rest for older adults independent of the multiple factors that lead them to hospitalization. These are the outcomes we are trying to avoid if patients are to progress through acute care and return to life in the community, avoiding readmission.

The authors conclude that older patients should be actively encouraged to remain out of bed as early as medical treatment can allow via assistance with ambulation from nursing and therapy staff. Methods of maintaining muscle function during bed rest should be vigorously pursued. As Creditor observed in 1993:

“Everyone who has contact with the patient throughout the day, including doctors, nurses and family members, should offer encouragement and assistance with ambulation, not just the physiotherapist during the 15-minute formal session once or twice a day. “High tech” medicine requires particular attention to “high touch” care if its recipients are to enjoy its rewards.”

Source: CT Collaboration for Fall Prevention. ©2005, Mary E. Tinetti, M.D. All rights reserved.

1. Inouye, SK, Brown CJ, and Tinetti ME. (2009) Medicare nonpayment, hospital falls and unintended consequences. *N Engl J Med* 360;23, 2390-2393.

2. Kortebein P, Symons B, Ferrando A, Paddon-Jones D. et al. (2008). Functional impact of 10 days of bed rest in healthy older adults. *J Geron* 63A;10, 1076–10.

3. Creditor M. (1993). Hazards of hospitalization of the elderly. *Annals of Internal Medicine*. 118; 219-223.