

Don't Statement:

Don't let older adults lay in bed or only get up to a chair during their hospital stay. Walking during the hospital stay is critical for maintaining functional ability in older adults.

Statement of Rationale:

Up to 65% of older adults who are independent in their ability to walk will lose their ability to walk during a hospital stay. Loss of walking independence increases the length of hospital stay, the need for rehabilitation services, new nursing home placement, risk for falls both during and after discharge from the hospital, places higher demands on caregivers and increases the risk of death for older adults. Bed rest or limited walking (only sitting up in a chair) during a hospital stay causes deconditioning and is one of the primary factors for loss of walking independence in hospitalized older adults. Older adults spend the majority of their time in bed during a hospital stay. In fact, older adults only take about 15% of steps they would normally take when at home. Loss of walking independence happens quickly. Within 48 hours of hospitalization older adults develop weakness in their legs and dizziness which affect their ability to walk. Thirty percent of older adults who lose their ability to walk independently become permanently disabled because they do not regain their ability to walk after discharge. The cost for additional medical and long term care support for newly disabled older adults in the United States is estimated to be \$26 billion per year.

Background:

Many years ago, bed rest was thought to be essential to help individuals overcome illness and injury. The value of bed rest was emphasized in the 19th century as the primary treatment for many health related problems such as heart attack, pneumonia, depression or anxiety and for surgical procedures. In hospitals, the bed is the center for providing patient care. So there is a strong association between patients and bed in the minds of healthcare providers (physicians and nurses). Further, older adults and their caregivers feel that they should "take to bed" when they are ill or injured and often will resist healthcare staff when encouraged to get up and walk. However, we know from research that spans back to the 1940s that bed rest or limited mobility does not speed up the process for overcoming illness or injury and in fact can be dangerous, particularly for older adults.

Evidence:

Older adults are more vulnerable to the effects of bed rest than younger adults because they already have decreases in muscle mass and strength, bone density, joint movement, body fluid volume and diminished reserve capacity. Bed rest affects every bodily system but affects to the cardiovascular and musculoskeletal systems have the most pronounced impact on an older adult's ability to maintain walking (Hoenig and Rubenstein, 1991). Within hours of bed rest there is a progressive loss of body fluid. By day two of bed rest there is a total body fluid loss of 600 mL (or slightly over ½ quart). This loss of fluid along with a decrease in drinking fluid that often happens during a the hospital stay, produces a drop in blood pressure (called orthostatic hypotension) and a sensation of dizziness as an older adult sits up (Creditor, 1993; Hoenig et al., 1991; Mahoney, 1998). Orthostatic hypotension and dizziness can increase an older

adult's fear of falling as well as the healthcare providers fear that the older adult will fall (King and Bowers, 2011) and further precipitate bed rest, which will just make orthostatic hypotension and dizziness worse. Lack of walking produces a loss in muscle mass and strength, particularly in the legs. After 10 days of bed rest healthy older adults lose 2.2 pounds of muscle mass from the legs (Kortebein, Symons, Ferrando, Paddon-Jones, Ronsen, Protas, Conger, Lombeida, Wolfe and Evans, 2008) with 2-5%/day loss of muscle strength (Gillis and MacDonald, 2005; Hoenig et. al., 1991). For an older adult who is ill and in the hospital, this loss in muscle strength can make the difference between being independent or becoming dependent and disabled.

Getting older adults up and walking during the hospital stay has been shown to have positive impacts on their health and well-being. It is well known that *used* muscles do not become weak. Older adults who walk during their hospital stay are able to walk farther by discharge (Markey and Brown, 2002), are discharged from the hospital sooner (Baird, Maxson, Wroblewski, and Luna, 2010; Mundy, Leet, Darst, Schnitzler, and Dunagan, 2003), have improvement in their ability to independently perform basic activities of daily living (bathing, dressing ,transferring, toileting and eating)(Padula, Hughes, and Baumhover, 2009), have a faster recovery rate after surgery (Pashikanti and Von Ah, 2012), and are very satisfied with being engaged in a walking program during their hospitalization (Tucker, Molsberger and Clark, 2004). Additionally, when older adult patients or their family members inform the nursing staff of how much they walked or how physically active they were before the hospital admission, nurses were far more likely to get the older adult up to walk and progressed walking to ensure that the older adult would be independent in walking at discharge (King and Bowers, 2011).

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