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Review article

Nurses needed: Identifying malnutrition in hospitalized older adults

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ABSTRACT

The American population is aging with one in every seven Americans over the age of 65. Throughout the healthcare continuum, this segment of the population is faced with the burden of malnutrition brought on by many factors including aging, inadequate food intake, and acute and chronic medical conditions. The loss of lean body mass, strength, and functionality compound malnutrition leading to weakness, hospitalizations, and overall decreased ability to perform activities of daily living. Up to 60% of hospitalized older adults are malnourished but many patients go unrecognized and undertreated. Nurses are in a pivotal position to change this trajectory. Nurses are often the first to identify patients in need of nutrition intervention and are integral to encouraging nutritional intake from admission through discharge. Effective nutrition screening can be conducted by nurses in minimal time as part of the admission process through the use of a screening tool that is simple, fast, reliable, and valid. As part of the collaborative health care team, nurses can effectively communicate nutrition screening results through the use of the electronic health record and when prescribed, ensure that nutrition interventions occur within the targeted timeframe. Nurses can develop procedures to provide patients with meal assistance, reliable access to food and snacks across all shifts, and help bridge nutritional gaps through oral nutritional supplements all in an effort to address malnutrition.

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Contents

1. Introduction

The American population is aging. According to recent

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estimates, in 2013 the older adult population (age 65+) numbered 44.7 million, accounting for 14.1% of the U.S. population, or over one in seven Americans (Administration for Community Living, n. d.). Older adults often suffer from more acute and chronic health conditions and utilize more health care resources than their younger-aged counterparts. In addition, older adults are at higher risk for nutritional deficits and malnutrition. Malnutrition impacts older adults across the health care continuum, from independent living older adults to those in the hospital, affecting up to 60% of hospitalized older adults (Agarwal, Miller, Yaxley, & Isenring,

2013). The cause of malnutrition is often multifactorial, including aging, inadequate food intake, and acute and chronic medical conditions (Agarwal et al., 2013; Morley, 1997). Often, older adults do not suffer from malnutrition alone, many also struggle with sarcopenia or the loss of lean body mass (LBM) and strength or functionality. Moreover, older adults are more likely to be hospitalized for illness, injuries and surgeries, further increasing the risk for malnutrition and accelerating the loss of LBM, and resulting in weakness, decreased mobility and functionality (Cangelosi, Rodday, Saunders, & Cohen, 2014; Covinsky et al., 2003; Hirsch, Sommers, Olsen, Mullen, & Winograd, 1990; Sager et al., 1996). Nurses regularly provide care to these malnourished patients. Unfortunately, malnutrition is frequently unrecognized and undertreated thus contributing to additional decline in ability to perform activities of daily living (ADLs). Yet, nurses are in a pivotal position to alter this trajectory.

Nurses play an important role in identifying patients at nutritional risk. In fact, upon admission, nurses often perform the first analysis to pinpoint patients in need of nutrition assessment and intervention. The nutrition screening performed by nurses within the first few hours of hospitalization sets the stage for quality care. In most instances, validated nutrition screening tools are used and the nurse is able to accurately identify and refer patients to the registered dietitian nutritionist (RDN) (Quatrara, 2015; Skipper, Ferguson, Thompson, Castellanos, & Porcari, 2012). Yet, as a result of inadequate screening processes and complex and often competing care demands, some patients are overlooked and underprioritized. For patients who do not trigger a nutrition need on admission and who develop increased nutritional needs during hospitalization, the processes of identification and intervention are not clear. (Elia, Zellipour, & Stratton, 2005; Patel et al., 2014; Quatrara, 2015). These patients may linger without adequate nutrition assessment and management during their hospital stay. Furthermore, the missed opportunity to promptly capture and direct care to the malnourished patient, results in delays in healing and recovery.

Nurses are essential partners in changing the tide and helping to instill processes which detect all patients with heightened nutrition needs. By identifying patients with or at risk for malnutrition, nurses can proactively initiate effective nutrition intervention strategies at any time point of the hospitalization to improve patient outcomes. The role of the nurse is important in directing the trajectory towards nutritional health and ensuring that interventions are effectively implemented. The purpose of this paper is to provide an overview of malnutrition prevalence and consequences and outline the nurse's role in caring for the nutritional needs of hospitalized older adult patients.

2. Malnutrition in older adults

Multiple physiological, social and economic factors increase the risk for malnutrition among older adults. This population often experiences physiological factors including decreased appetite and food intake, poor dentition, and an increase in the presence and severity of acute and chronic medical conditions (Agarwal et al., 2013; Morley, 1997). In addition, older adults may also experience social and economic factors which can further negatively impact their dietary intake and nutritional status, such as changes in living environment and limited finances (Morley, 1997).

On average, people become less hungry and eat less as they get older (Wurtman, Lieberman, Tsay, Nader, & Chew, 1988). Older adults experience less hunger and more fullness before meals, consume smaller meals more slowly, eat fewer snacks between meals, and become satiated more rapidly after eating a normal meal than younger adults (Clarkston et al., 1997; Morley, 1997).

Aging may be associated with consumption of a less varied, more monotonous diet. Average daily energy intake decreases by up to 30% between 20 and 80 years of age. (Chernoff, 2003). This physiologic, age-related reduction in appetite and energy intake has been termed the "anorexia of aging" (Morley, 1997).

Older adults are at high risk for malnutrition across the healthcare continuum, particularly in the hospital setting. While the prevalence rates vary based on the numerous nutrition screening and assessment tools used in the studies, the research consistently shows that older adults are at high risk of malnutrition and that 25% to over 50% of hospitalized adults have malnutrition (Agarwal et al., 2013). Unfortunately, actual malnutrition diagnosis rates in the hospital using ICD-9 codes are not fully captured and are inconsistent with prevalence rates. A study of malnutrition diagnosis in hospitalized patients in the US in 2010 showed that only 3.2% of all US hospital discharges had a documented malnutrition diagnosis, and that patients with a malnutrition diagnosis were more likely to be older (Corkins et al., 2014).

An individual's body weight or body mass index (BMI) is not an appropriate indicator of malnutrition. Patients who are underweight, overweight or obese can experience malnutrition. A 2013 study of hospitalized patients newly admitted to internal medical and surgical departments found that of 431 subjects, 32% (n=138) were overweight and 24% (n=105) were obese; and among overweight and obese patients, 23.2% and 24.8%, respectively, were at increased risk for malnutrition (Leibovitz et al., 2013). Further, this study showed that increased risk for malnutrition prolonged hospitalization and increased risk for in-hospital mortality for both overweight and obese subjects (Leibovitz et al., 2013).

3. Identifying malnourished patients

In 2012, the Academy of Nutrition and Dietetics (AND) and the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) published a consensus statement on key characteristics for the diagnosis of adult malnutrition (White, Guenter, Jensen, Malone, & Schofield, 2012a, 2012b).

The consensus suggests that malnutrition is present if two or more of the following six criteria are met: insufficient energy intake, weight loss, loss of muscle mass, loss of subcutaneous fat, localized or generalized fluid accumulation, and diminished functional status. This consensus statement does not include serum albumin and prealbumin levels as nutritional status indicators, which previously were considered standard for the identification of malnutrition. Historically, clinicians correlated poor nutritional status and protein energy malnutrition with low serum albumin and prealbumin levels. Recent studies however have shown that serum albumin levels are markers of inflammation and not malnutrition, and that low serum albumin and prealbumin levels are not always indicative of malnutrition and conversely that patients with malnutrition do not always have low levels of these proteins (Jensen, Hsiao, & Wheeler, 2012; White et al., 2012b).

4. Malnutrition is associated with poor clinical outcomes

Malnutrition results in significant negative outcomes for the patient, caregiver and the health care system including increased morbidity, mortality, hospital length of stay, and hospital readmissions (Felder et al., 2015; Norman, Pichard, Lochs, & Pirlich, 2008). Hospital readmissions are a growing problem for the U.S. healthcare system, as almost one fifth (19.6%) of Medicare beneficiaries discharged from a hospital are readmitted within 30 days