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Malnutrition Screening

An interprofessional approach in outpatient oncology

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BACKGROUND: Malnutrition is highly prevalent in the oncology population and is associated with poor treatment outcomes.

OBJECTIVES: This study aimed to implement a malnutrition screening process using a validated tool in three outpatient cancer centers.

METHODS: Nursing and nutrition department leaders collaborated to establish malnutrition screening. The Malnutrition Screening Tool (MST) was embedded in the electronic health record. Based on the MST, a score of 2 or greater is considered at risk for malnutrition. Nurses were educated on screening all patients completing their first cycle of infusion chemotherapy. Data were collected for six months.

FINDINGS: Interprofessional collaboration established a process to implement malnutrition screening. Twenty-eight percent of patients with cancer were at risk for malnutrition. Fifty-three percent were at risk for malnutrition based on MST scores of 2. Compliance with the MST at first infusion visit was 30%–81% across the three cancer centers.

KEYWORDS
malnutrition; screening; cancer; outpatient; Malnutrition Screening Tool

DIGITAL OBJECT IDENTIFIER
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MALNUTRITION AFFECTS 40%–80% OF THE ONCOLOGY POPULATION (Lee et al., 2016). Among patients seen in acute care, the prevalence of malnutrition is highest in the oncology setting (Hettiarachchi et al., 2018). Many factors are associated with malnutrition; in patients with cancer, it is often diagnosed at the same time the patient is initially diagnosed (Lee et al., 2016). The metabolic activity of the disease and presence of inflammation are some of the mechanisms associated with a high prevalence of malnutrition in the oncology population. Severe and persistent inflammation can result in loss of lean body mass, which is one clinical characteristic of malnutrition (Mueller et al., 2011). Impaired nutrition because of the side effects of chemotherapy, radiation therapy, or surgery can also contribute to poor nutrition status. Anorexia, changes in activities of daily living, and psychological changes also play a role in malnutrition (Lee et al., 2016).

Patients with cancer can have increased nutritional requirements because of higher resting energy expenditures (REE). Individuals with higher REE require significantly more energy to maintain body weight and functions. Higher REE increase calorie, protein, and micronutrient needs (Cao et al., 2010). Patients with esophageal, gastric, pancreatic, and non-small cell lung cancers are at higher risk for malnutrition because they can have higher REE.

Malnutrition can significantly affect patients with cancer, including poor prognosis and treatment outcomes, reduced functional status and quality of life, and increased risk of chemotherapy-induced toxicity and postsurgical complications (Lee et al., 2016). Disease-related malnutrition is attributed to 20% of cancer mortality rates (Hettiarachchi et al., 2018). Patient malnutrition can contribute to poor clinical outcomes and decreased performance status, potentially increasing inpatient hospitalization rates and healthcare costs (Lee et al., 2016). Patients who lose as much as 20% of their body weight during cancer treatment have 50% or greater inpatient readmission rates (Capuano et al., 2008).

Malnutrition

Measurements and Evaluation

Unintentional weight loss is a metric that suggests malnutrition. A loss of greater than 20% of body weight is associated with a greater risk of treatment interruptions, infections, and early mortality (Capuano et al., 2008).