

# Interprofessional Approach to Fall Risk Screening in Patients Undergoing Radiation Therapy

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Patients receiving radiation therapy (RT) for cancer are at greater risk for falls because of age, treatment, pharmacologic side effects, and cognitive or motor deficits. The Timed Up and Go (TUG) Test is a validated, objective measure of fall risk and potential functional decline. The purpose of this project was to integrate an objective measure of fall risk and functional decline using the TUG Test for patients undergoing RT, engage patients in their potential fall risk prevention, and initiate referrals to rehabilitation services or a gait and balance clinic. Nurse-led screening initiatives may reduce the risk for injury by identifying patients who are at risk for deconditioning as RT progresses.

## AT A GLANCE

- The TUG Test can measure fall risk for all adult patients undergoing RT.
- Collaboration based on TUG Test results provided personalized interventions that helped engage patients in fall risk self-assessment, serial TUG Test results review, and rehabilitation referrals, such as gait and balance clinics.
- Nurse-led screening initiatives may reduce the risk for injury by identifying patients at increased risk for deconditioning as RT progresses.

## KEYWORDS

falls; radiation treatments; fall risk; Timed Up and Go Test; functional decline

## DIGITAL OBJECT IDENTIFIER

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Falls in the older adult population are the leading cause of injury-related morbidity and mortality in the United States, with 27.5% of older adults reporting a fall in the previous year and 10.2% sustaining a fall-related injury (Moreland et al., 2020). Older adults are at an increased risk for falls, and patients with a cancer diagnosis are even more likely to experience a fall, fall-related injuries, and general mortality (Kenis et al., 2022; Zhang et al., 2018). One study found that community-dwelling patients with cancer sustained more injuries and fell more frequently than patients without cancer (Sattar et al., 2021). About 20% of patients aged 65 years or older with newly diagnosed cancer report a fall at home within the first six months of their cancer diagnosis (Sattar et al., 2021).

Declines in functional status can occur during the first year after a cancer diagnosis (Presley et al., 2019) and can be accelerated in older adult patients with cancer (Magnuson et al., 2019). In a prospective study of patients with advanced cancer, 52% of patients fell during a postdiagnosis follow-up period lasting as long as six months, regardless of age (Stone et al., 2011). Advanced disease may manifest in bone metastasis, which predicates a risk for injury (Nelson et al., 2023).

The Clinical Practice Guideline for Prevention of Falls in Older Persons (Panel on Prevention of Falls in Older Persons, American Geriatrics Society, & British Geriatrics Society, 2011) recommends a risk assessment followed by multicomponent interventions to address the identified risk in older adults. Interventions include minimizing the number of medications, treating vision impairment, addressing foot and footwear problems, providing vitamin D supplementations, modifying the home environment, providing education and necessary information, and managing postural hypotension, heart rate, and rhythmic abnormalities. A review of history of falls, balance, and gait difficulties is recommended for all older adult patients with cancer (Jensen-Battaglia et al., 2022). Evidence from a meta-analysis of randomized trials supported the effectiveness of a multifactorial fall risk assessment and management, exercise, environmental modifications, and education to decrease the risk for—but not the rate of—falls in older adults (Sherrington et al., 2019, 2020). Gait speed as a measure of functional status can predict