Assessing Functional Status, Frailty, and Fall Risk in the Older Adult with Cancer

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Objectives

- Define and relate functional status, frailty, and falls to oncology care of the older person.
- Identify functional status, frailty, and fall risk screening tool appropriate for clinical practice.
- Identify three types of recommendations based on functional status, frailty, and fall risk screening tools.

Functional Status

- The extent to which a person can perform basic and more complex tasks which are central to independence (Rubenstein et al., 1984).
  - Katz et al. (1970) considers six elements (bathing, dressing, toileting, transferring, continence and feeding).
  - Lawton & Brody, (1969) considers more refined domains (using the telephone, transportation, cooking, cleaning, laundry, caring for money, taking medicine, shopping).

Functional Status

- The ability to meet the roles and tasks that maintain some level of independence.
- Physical and cognitive abilities.
- General insight into how a person functions outside of the clinical setting.

Functional Reserve

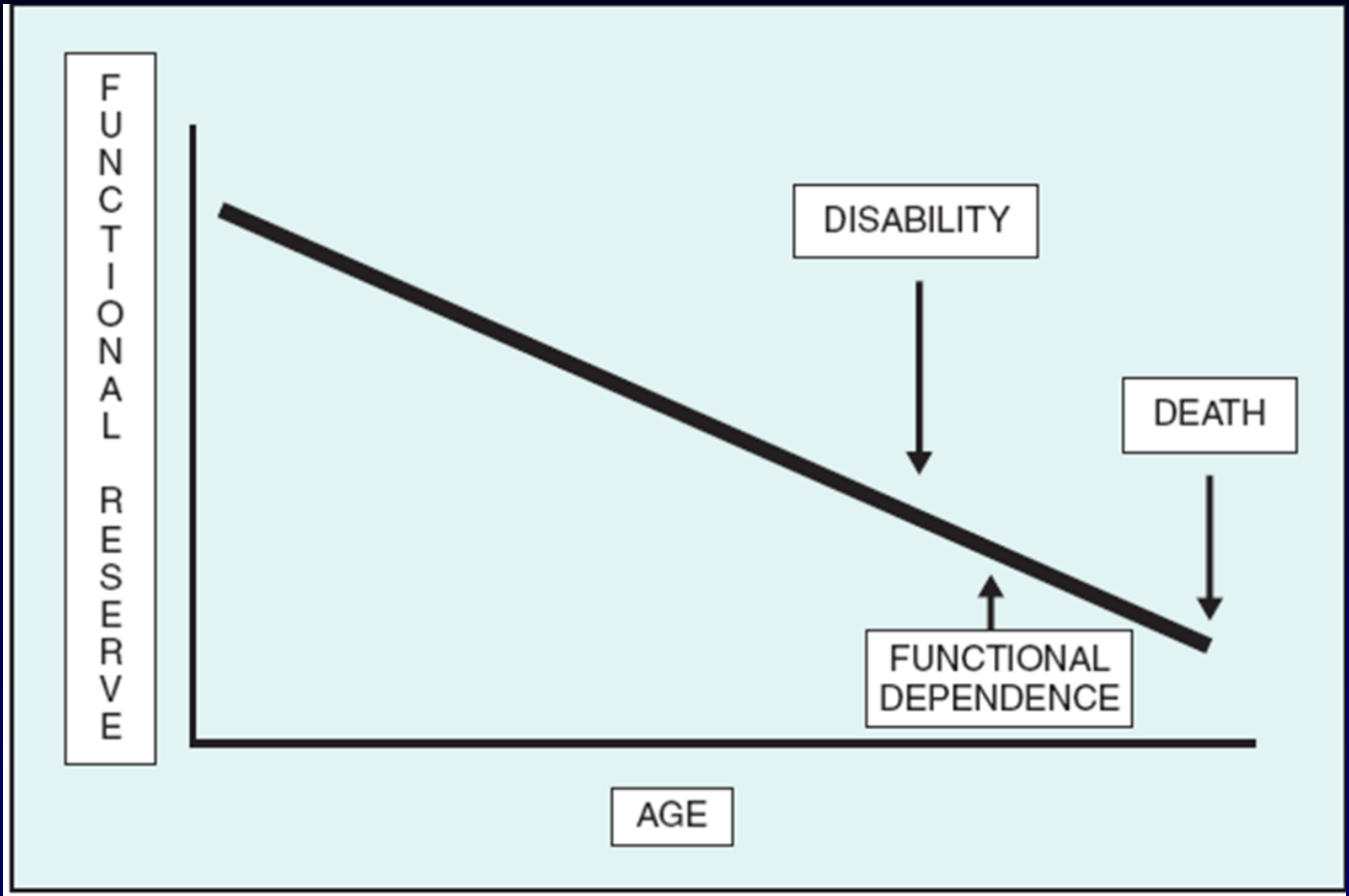


Fig 1. — The trajectory of aging.

Balducci, 2007

Functional Status Assessment and Importance to General Care

- Functional status is predictive of other problems such as:
  - Falls (J. A. Overcash & Beckstead, 2008).
  - Longer hospital stays (Partridge et al., 2015).
  - Disease-related symptoms (Whitson et al., 2009).
  - General health status (Kutner, Zhang, Huang, & Painter, 2015).

Importance of Functional Status Specific to Oncology

- Functional status, and not chronological age, is an important indicator of cancer treatment tolerance (Garman & Cohen, 2002; Chen et al., 2003)
- Changes in functional status may help determine cancer treatment tolerance or disease progression (Given et al., 2001; Wyrwich & Wolinsky, 2000)
- Assessment of physical function can identify those patients who have an increased risk of hospitalization (Wyrwich & Wolinsky, 2000).

Frailty

- Descriptors (Fried et al. 2001)
  - Syndrome
  - Disability
  - Comorbidity
  - Age
  - Deconditioning
  - Cognitive Decline
  - Dependence
- Descriptors (Rockwood, 2011).
  - Accumulation of deficits
  - Risk of adverse health outcomes
  - Diminished ability to respond to stress

Cycle of Frailty Illustration

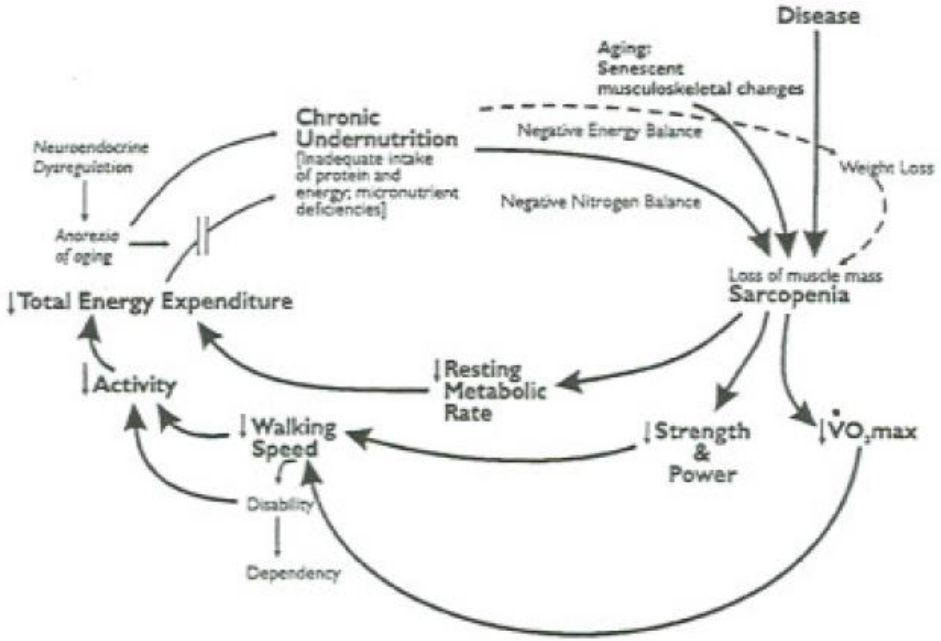


Figure 1. Cycle of frailty hypothesized as consistent with demonstrated pairwise associations and clinical signs and symptoms of frailty. Reproduced with permission from (14).

Fried et al. 2001

Frailty and Cancer Care

- Difference between receiving curative versus palliative care (Balducci, 2007).
- Life Expectancy and cancer treatment decisions
- Social support needs

Falls and Fall Risk

- Falls are an unplanned descent to the floor (or extension of the floor) resulting in injury or no injury. Falls includes assisted and unassisted falls. *Joint Commission's Implementation Guide for the National Quality Forum Endorsed Nursing-Sensitive Care Performance Measures.*

Falls in Cancer Patients

- Pain, fatigue and other symptoms of cancer treatment may enhance the fall risk in older cancer patients (Holley, 2002).
- Approximately 50% of adults with advanced cancer will fall while hospitalized (Stone et al 2012).
- 17% of cancer patients fall within 6 months of a cancer diagnosis (Puts et al 2012).
- One out of three adults age 65 and older falls each year, but less than half tell their healthcare providers (Haousshoff et al 2001).

Falls and Cancer in Community-Dwelling Seniors

- Approximately, 23% of seniors diagnosed with cancer fall
  - receiving chemotherapy 31%
  - in general geriatrics 45% (Overcash, 2007).
- Active seniors who perform vigorous activity have increased rates of falls (Kelsey, et al 2013).

Risk Factors for Falls for Community-Dwelling Seniors

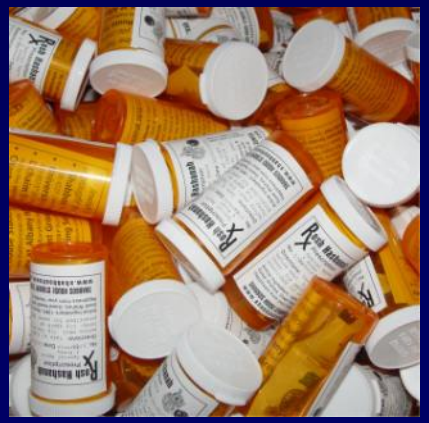
- For people ages 65 and older, most falls occur in or around the home (Nevitt 1989; Wilkins 1999).
- Being female (Baker 1992; Tromp 1998).
- Being white (Baker 1992).
- Having had a previous fall (AGS 2001).
- Having lower body weakness or gait or balance problems (Stenhagen, et a. 2012).

Risk Factors for Falls for Community-Dwelling Seniors

- Having physical limitations (Koski 1996)
- Wearing glasses, or having other visual problems (Lord 2001)
- Having more than one chronic disease (Tinetti 1986)
- History of stroke (Dolinis et al., 1997)
- Parkinson's Disease (Northridge1996; Dolinis 1997)
- Neuromuscular disease (Lau 1991)
- Urinary incontinence (Tromp 2001)
- Postural hypotension (Kario 2001)

Risk Factors for Falls for Community-Dwelling Seniors

- Being cognitively impaired (Tromp 2001).
- Wearing shoes with thick, soft soles (e.g., jogging shoes) (Robbins 1994).
- Taking more than four medications or using psychoactive medications (Cumming 1998).



Assessment in a Busy Setting

- Functional Status
  - Activities of Daily Living/Instrumental Activities of Daily Living.
  - Timed Up & Go (Podsiadlo & Richardson, 1991).
  - Grip Strength (Kim, et al., 2015).
  - Barthel Activity Index (Wade & Collin, 1988).

Assessment in a Busy Setting

- Falls
  - TUG
  - Berg Balance Scale (Berg et al., 1992).
  - Observation of gait (Tinetti et al. 1994)

Assessment in a Busy Setting

- Phenotype of **Frailty** (Fried et al., 2001). Defined by three or more factors:
  - Unintentional weight loss of more than 10 LBS
  - Exhaustion
  - Grip strength weakness
  - Slow walking speed
  - Low physical activity

Interventions for Functional Status, Frailty and Falls

- Determine the cause of the limitation
  - Pain
  - Deconditioning
  - Weakness
  - Inactivity
  - Sensory Impairments

Interventions for Functional Status, Frailty and Falls

- Physical Therapy/Occupational therapy
- Primary Care Providers communication
- Mind Body Movement Exercise
  - Tai Chi (Galantino et al., 2013)
- Weight bearing exercise (Zhu et al., 2016)

Conclusion

- Assessment of functional status, frailty and falls are central in caring for the older person with cancer.
- Management of functional limitations, falls and frailty are important to the care of the older person with cancer.

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