Module: Frailty Assessment

Learning Objectives

Attitudes

- Recognize the increased vulnerability of frail patients and the importance of providing compassionate, patient-centered care
- Develop a commitment to advocating for early palliative care involvement when appropriate

Knowledge

- Grasp the key characteristics of frailty
- Demonstrate familiarity with frailty assessment methods such as the Frailty Index (FI), Frailty Scales (FS), Frailty Risk Assessment Index (RAI), and specialty-specific tools like TSFI and EGSFI
- Comprehend how palliative care can address the physical, psychosocial, and emotional needs of frail patients

Skills

- Demonstrate the ability to apply frailty assessment tools effectively
- Elicit care goals and communicate treatment options with frail patients and their families
- Coordinate timely palliative care discussions grounded in a recognition of frailty and its impacts

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Frailty

Frailty is characterized by a decline in physiological and functional reserves and increased vulnerability, leading to a compromised ability to cope with stressors. Recognizing and assessing frailty is crucial, as it can guide intensive rehabilitation, and caregiver support, or signify the need for palliative care in surgical patients. Using frailty as a tool to identify high-risk patients improves the accuracy of predicting adverse outcomes, aids in efficiently allocating healthcare resources, and enhances preoperative risk assessments. This ultimately leads to better patient care and surgical decision-making. Since its inception, the measurement of frailty has evolved through various tools and methods designed to identify frail patients accurately. The method of assessment often depends on clinical settings, the patient population, and the time available for evaluation.

Assessing Frailty

Two widely used frailty assessment methods are the Frailty Index (FI) and Frailty Scales (FS). The FI evaluates a range of health deficits such as physical limitations and chronic illnesses, calculating a score based on how many deficits a patient has, with more deficits indicating higher levels of frailty. FS, which focuses on specific physical health areas like weight loss and grip strength, provides a more subjective criterion. An alternate frailty assessment is utilized within the Veterans Health Administration Hospitals; all patients undergoing elective surgery are to have a Frailty Risk Assessment Index (RAI) calculated and incorporated into the preoperative discussion and planning—an initiative known as the "Surgical Pause." Understanding frailty in the context of operative risk allows for targeted interventions such as nutritional optimization, exercise plans, or palliative care consultation in advance of elective surgery.

Moreover, there are specialty specific frailty assessment tools available in clinical practice. In the context of trauma and acute care surgery, the 15-variable Trauma-specific Frailty Index (TSFI) is a validated tool that can aid clinicians in planning the discharge disposition of geriatric trauma patients and has shown a high predictive value for outcomes. The Emergency General Surgery Frailty Index (EGSFI) also serves as a reliable predictor of postoperative complications and mortality in frail patients undergoing emergent surgical procedures. Utilization of these specialty specific tools can help guide difficult conversations and assist clinicians with prognostication in frail patients who are injured or potentially undergoing unanticipated surgical procedures.

Palliative Care and Frailty Assessment

Palliative care in surgery plays a critical role in optimizing patient outcomes by addressing not only the physical aspects of advanced disease but also the psychosocial and emotional challenges faced by patients. The importance of palliative care is increasingly recognized in medical literature, particularly regarding its impact on frail patients. Patients who are deemed "frail" are at a higher risk for surgical morbidity and mortality. Although clear guidelines for consulting palliative care in individuals with frailty are still in development, it is recommended that such care be considered for those experiencing ongoing functional decline, rising healthcare needs, and unmanaged symptoms. Stow et al. conducted a systematic review examining the palliative care needs of frail patients, focusing on psychosocial needs, functional status, and

care preferences. The review found that frail patients suffering from non-malignant illnesses experience pain and emotional distress at levels comparable to those with terminal cancer. Furthermore, the authors highlighted that while frail patients have significant physical and psychosocial support needs that could be addressed through palliative care, these needs are unlikely to be assessed. These findings suggest that frailty should be a trigger for initiating palliative care conversations.

Frailty is a dynamic process that exists on a spectrum rather than simple stratification of frail versus non-frail. Frailty should be considered a measure of a patient's functional trajectory throughout their care. Therefore, Frailty assessment should be performed at multiple points: upon admission to address acute symptoms, preoperatively to establish a framework for discussing goals of care, and postoperatively to guide recovery and manage both potential complications and patient/family expectations. Moreover, tracking a patient's functional trajectory over time provides valuable insight into their recovery potential, overall health status, and alignment with their goals of care during their hospitalization.

Efforts have been made focusing on incorporating frailty assessments in palliative care, highlighting their potential to enhance patient-centered care. A retrospective study examined the effects of early (≤3 days after admission) versus late (>3 days) palliative care consultation from the day of consultation to discharge and found that early palliative consultation was associated with fewer inpatient deaths and a shorter duration from consult to discharge among frail elderly patients. Moreover, the principles of palliative care have also been adapted across different surgical specialty fields to address the unique challenges of managing frail patients. Several studies have described the role of frailty in identifying the need for palliative care in ICU patients, neurocritical care, and other specialties. In the scope of orthopedic surgery, frail patients, particularly those with severe dementia or serious comorbidities, are more likely to benefit from nonoperative treatment, even in the management of hip fractures. Early palliative care involvement ensures more comprehensive management of frail patients' complex health needs.

Frail patients admitted to intensive care units have demonstrated significantly higher mortality rates within six months compared to their non-frail counterparts, highlighting the urgent need for integrated palliative care approaches to better align treatment strategies of patients nearing death. Palliative care for frail patients who received advance care planning (ACP) reported that their end-of-life wishes were more likely to be known and respected. Additionally, family members of those who were offered ACP experienced lower levels of anxiety, depression, and stress, which contributed to an overall greater satisfaction with the quality of the patient's end-of-life experience.

Impact of Frailty Assessment Implementation in Palliative Care

The improved outcomes associated with frailty assessment in palliative care highlight the significance of systematic screening programs in enhancing patient results as such programs effectively identify at-risk surgical patients, leading to a notable reduction in mortality for those who undergo palliative care consultations. An analysis by Ernst et al. (2006–2013) examined surgical palliative consultations before and after the implementation of frailty assessment within the healthcare system. The study revealed a significant increase in palliative care consultations following the adoption of frailty assessments, which became instrumental in identifying high-risk patients. This approach enabled more targeted palliative care

interventions and was associated with reduced postoperative mortality. These findings suggest that incorporating frailty assessments into preoperative evaluations offers an objective framework to effectively guide surgical palliative care consultations.

Palliative care plays a crucial role in improving communication between patients and their families, facilitating the establishment of care objectives, enhancing pain and symptom management, and addressing psychosocial issues. Conversations about these issues facilitate appropriate advanced care planning and support that is concordant with patient goals as they approach end of life. Although access to specialized palliative care may be limited, several care models offer frameworks for healthcare providers in all disciplines to incorporate palliative care concepts into their practice, promoting a more patient-centered approach to care. One example that has been utilized both in Geriatrics and in Primary Care is the Age-Friendly Health Systems, which focuses on the "4Ms" (What Matters, Medication, Mentation, and Mobility) and aims to implement a core set of evidence-based practices to enhance care for older adults.

Challenges

Despite the established benefits of frailty assessment and palliative care, these consultations remain underutilized, with only 3.7% of surgical patients receiving palliative care either within one month before or up to three months after high-risk surgeries. This gap is further widened by disparities in access, often influenced by race and ethnicity, highlighting the critical need to better integrate palliative care consultation for frail patients. While not all frail patients require specialist consultations, primary surgical teams can play a crucial role by providing essential primary palliative care, including assessing frailty, discussing patient-centered goals, managing symptoms, and guiding advance care planning, all of which can be integrated into routine rounds at bedside, preoperative, and postoperative care.

Incorporating primary palliative care practices into surgical care allows for the early identification of frail patients' needs, improving care quality and outcomes without necessarily involving specialists. Standardizing frailty assessments as part of preoperative evaluations can help identify patients who would benefit from timely palliative care interventions, leading to better outcomes and enhanced quality of life. By ensuring that frail patients receive personalized, goal-concordant care, healthcare providers can support informed decision-making, improve surgical outcomes, and optimize resource utilization while prioritizing the well-being of these vulnerable patients.

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Pre/Post Test

Questions

1. Name two common tools used to assess frailty in surgical patients.
2. What are the two key benefits of incorporating frailty assessments into preoperative evaluations?
3. At what stages of surgical care should palliative care be considered for frail patients?

Answers

1. Frailty Index (FI), Frailty Scales (FS), and/or Frailty Risk Assessment Index (RAI).
2. Improves prediction of adverse outcomes, enhances resource allocation for patients who objectively need more care.
3. Palliative care should be considered for frail patients at hospital admission, preoperatively to set goals, and postoperatively to align patients recovery pathway and interventions with patient values.

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Case 1

Mr. Davis, an 82-year-old man, is scheduled for elective hip surgery. The patient claims that pain in his right hip during attempts to ambulate has significantly diminished his quality of life and mobility. He currently walks with a walker citing "hip pain" as the cause for needing an assistive device and can only walk short distances. He also reports shortness of breath when walking more than 20-30 feet. During his preoperative assessment, you note he has multiple chronic conditions, including diabetes and heart failure with a reduced ejection fraction. He seems concerned about the risks of surgery and recovery. You are considering a frailty assessment to guide his surgical plan and peri-operative care.

Questions

1. Discuss the importance of performing a frailty assessment before surgery and how it can help predict post-operative outcomes.

2. Explain how the Frailty Index (FI) or Frailty Scales (FS) can help guide decisions regarding surgery and post-operative rehabilitation.

Case 2

Mrs. Jackson, an 84-year-old woman, presents to the emergency department after a traumatic fall at home, with multiple displaced rib fractures, significant pain, and worsening shortness of breath. She has been evaluated with the Trauma-Specific Frailty Index (TSFI) and was found to be frail. Her family is concerned about her chances for recovery and ability to return home after injury indicating that she has disclosed many times that she values her independence and would never want to live in a skilled nursing facility. Given her deteriorating respiratory status, you need to decide whether to pursue aggressive interventions such as surgical fixation of her rib fractures and/or endotracheal intubation.

Questions

1. Discuss with the patient and/or their family the meaning of frailty, focusing on her functional status and how her functional trajectory can inform the likelihood of recovery. Consider how recent changes in her functional abilities may impact her goals and expectations for quality of life.

2. Address whether non-operative management or early palliative care involvement may be beneficial, based on the patient's frailty score, her known wishes about functional independence, and her overall prognosis.

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Appendix A: Fifteen Variable Trauma Specific Frailty Index

The total Trauma Specific Frailty Index (TSFI) can be calculated by adding points from the questionnaire below and dividing by 15. Scores can be interpreted as follows:

- **TSFI < 0.12 = Non-frail**
- **TSFI 0.12 to 0.25 = Pre-frail**
- **TSFI > 0.25 = Frail**

Fifteen Variable Trauma Specific Frailty Index			
Comorbidities			
Cancer history	YES (1)	No (0)	
Coronary Heart Disease	MI (1)	CABG (0.75)	PCI (0.5)
	Medication (0.25)	None (0)	
Dementia	Severe (1)	Moderate (0.5)	Mild (0.25)
	No (0)		
Daily Activities			
Help with grooming	Yes (1)	No (0)	
Help managing money	Yes (1)	No (0)	
Help doing housework	Yes (1)	No (0)	
Help toileting	Yes (1)	No (0)	
Help walking	Wheelchair (1)	Walker (0.75)	Cane (0.5)
	No (0)		
Health Attitude			
Feel less useful	Most time (1)	Sometimes (0.5)	Never (0)
Feel sad	Most time (1)	Sometimes (0.5)	Never (0)
Feel effort to do everything	Most time (1)	Sometimes (0.5)	Never (0)
Falls	Within last month (1)	Present not in last month (0.5)	None (0)
Feel lonely	Most time (1)	Sometimes (0.5)	Never (0)
Function			
Sexually active	Yes (0)	No (1)	
Nutrition			
Albumin	<3 (1)	>3 (0)	
TSFI = The total score obtained from the questionnaire is divided by 15 **Non-frail** = TSFI ≤ 0.12; **Prefrail** = TSFI 0.12 to 0.25; **Frail** = TSFI > 0.25			

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Frailty Assessment Learner Assessment Form

Content Checklist: Make an "X" if the resident did this without prompting, mark with "✓" if the resident did this only after prompting, and leave blank if this was not done.

_____Recognized and assessed frailty using an appropriate tool

_____Suggested palliative care interventions or expert consultation based on frailty assessment results

_____ Explained the concept of frailty, including its implications for health outcomes, recovery, and surgical risks

_____Tailored surgical decisions based on frailty and overall prognosis

_____ Addressed the psychosocial and emotional needs of frail patients, encouraging them to express concerns and fears

_____Discussed care goals and ensured patient understanding of frailty's role in decision-making

_____Coordinated interdisciplinary collaboration for patient-centered care

Please provide your overall assessment.

_____ Competent to perform independently
_____ Needs close supervision
_____ Needs basic instruction

Do you believe the resident was able to integrate frailty assessment and palliative care into the surgical decision-making process with patient-centered care?

☐ Yes or ☐ No

If you believe additional training is needed, please indicate what problems need to be addressed (check all that apply):

☐ Knowledge of frailty assessment methods (inadequate understanding of frailty indicators, lack of familiarity with assessment tools, inability to interpret results effectively)

☐ Implementation of frailty care plans (difficulty in creating individualized care strategies, insufficient communication with the healthcare team regarding frailty management, neglecting to involve patients in decision-making)

☐ Other

NOTES