Oncology Patient Evidence-Based Notes (OPEN): Cancer-Related Fatigue

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Introduction

Oncology Patient Evidence-Based Notes (OPEN), the new format of this column, will present a clinical oncology question followed by a review and synopsis of relevant evidence-based guidelines.

What is the best treatment for cancer-related fatigue?

Summary

Fatigue is a common, significant problem in patients receiving cancer treatment. About 80%–100% of patients with cancer report some degree of fatigue (Nail, 2002; Ream & Richardson, 1999). Similar to pain, fatigue is a subjective, complex experience. Patients may report feelings of fatigue despite the use of erythropoietin therapy to increase or maintain their hemoglobin levels.

In an effort to better understand and treat fatigue, the National Comprehensive Cancer Network (NCCN) convened a panel of experts to review the literature on cancer-related fatigue and develop evidence-based clinical practice guidelines. The initial guidelines were published in 2000 and revised in 2003. The guidelines include a definition of cancer-related fatigue, standards of care, screening and primary evaluation, and interventions for fatigue during active treatment, long-term follow-up, and end-of-life care (NCCN, 2003).

Cancer-related fatigue is defined as “a persistent, subjective sense of tiredness related to cancer or cancer treatment that interferes with usual functioning” (NCCN, 2003, p. 2). Because of the subjective nature of fatigue, patients’ self-reports are a key component of adequate, thorough assessments. Other sources of data include patient history and physical examination, laboratory studies, and family or caregiver information.

The guidelines stress the importance of initial screening followed by ongoing assessment, monitoring, documentation, and evaluation. During the initial screening process, a quantitative assessment (e.g., Likert scale) is critical to document the level or severity of fatigue so that all healthcare professionals involved may better understand and recognize fatigue. Initial evaluations should include patients’ disease status; comorbidities; medication lists, including prescribed, over-the-counter, and supplemental medications, vitamins, and herbs; pain level; type and length of treatment; and treatment response. Comorbidities (e.g., cardiac, pulmonary, renal, neurologic, and hepatic disease; infection; thyroid dysfunction) may predispose patients to fatigue even before the initiation of cancer treatment. Many medications also may cause side effects such as sedation or drowsiness. Specific issues pertaining to fatigue include onset; duration; contributing or alleviating factors; interference with daily activities, work schedules, sleep patterns, and exercise and activity levels; physical and emotional symptoms; and nutritional patterns, including weight changes and dietary and fluid intake.

Treatment for cancer-related fatigue for patients receiving treatment focuses on patient and family education and counseling and nonpharmacologic and pharmacologic interventions (see Figure 1). Patients and family members should be informed about treatment-related fatigue and its usual length and general characteristics. Patients experiencing fatigue may fear that they are not tolerating treatment as expected or that the disease is progressing. Education and support may facilitate an understanding that fatigue is normal and should be monitored and reported to healthcare providers. Patients and family members also should be educated about symptoms of depression and anxiety that may occur. These symptoms (e.g., general malaise, lack of concentration, decreased desire to participate in daily or social activities, altered sleep patterns) must be differentiated from symptoms associated with cancer-related fatigue.

Basic strategies to manage fatigue focus on conserving energy. Patients should be instructed to set priorities, limit all unnecessary activities, delegate responsibilities when possible, and perform activities during expected high-energy periods. Frequent rest periods that do not interfere with nighttime sleep and activities that produce distraction (e.g., socializing, listening to music, reading) also may be helpful in alleviating fatigue.

Nonpharmacologic Interventions

Nonpharmacologic approaches to alleviate cancer-related fatigue include physical activity, psychosocial interventions, sleep therapy, and nutritional counseling. Patients should be encouraged to maintain normal

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levels of activity because decreased levels of activity can cause decreased functional capacity for patients, which may compound the severity of cancer-related fatigue. Increased levels of functioning can decrease fatigue and improve quality of life in patients with cancer receiving treatment (Category 1 level of evidence, see Figure 2). To maintain or improve activity levels, patients may require appropriate referrals to physical therapy for evaluation and recommendations regarding specific exercise programs that are individualized for age, gender, and performance status.

Besides physical activity, psychosocial interventions have been shown to decrease levels of fatigue (Category 1). Depression, anxiety, and emotional distress can produce symptoms that may accentuate cancer-related fatigue. Activities such as yoga, meditation, and socialization with others in support groups may decrease stress and increase mood states, thereby improving overall fatigue levels.

Patients with cancer often experience disturbances in sleep patterns because of stress or the use of corticosteroids with many antiemetic and chemotherapeutic regimens. Strategies to improve sleep may include evening relaxation activities (e.g., reading, listening to music, taking warm baths), limiting daytime naps, avoiding caffeine, and scheduling regular sleep hours.
Altered nutritional patterns also are common for patients with cancer receiving treatment because of nausea, vomiting, and taste changes, leading to dehydration. Patients may experience weakness and fatigue because of poor dietary and fluid intake and subsequently may experience electrolyte imbalances. Patients should be encouraged to consume adequate amounts of fluid and may need referrals to nutritional counseling to develop individualized diet plans that incorporate high-calorie, high-protein foods.

**Pharmacologic Interventions**

Pharmacologic approaches for the treatment of fatigue include erythropoietin, antidepressants, and steroids. Patients being treated for cancer frequently experience some degree of myelosuppression and anemia. Laboratory values should be monitored on a routine basis to assess for anemia so that treatment consisting of epoetin alfa or darbepoetin alfa may be considered. Patients with cancer-related fatigue also may benefit from the use of antidepressants that can elevate mood and decrease emotional distress. Limited research is available about other pharmacologic therapies for cancer-related fatigue.

**Conclusion**

Cancer-related fatigue is a common, subjective experience for patients with cancer. Thorough assessment, ongoing monitoring, and evaluation by all healthcare professionals caring for patients undergoing cancer treatment are critical for early identification and treatment of cancer-related fatigue. Further research is needed to investigate the multifaceted variables associated with cancer-related fatigue. However, at present, research suggests that patients participating in physical activity and psychosocial interventions have decreased levels of fatigue.

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**References**


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**Oncology Patient Evidence-Based Notes (OPEN): Cancer-Related Fatigue**

- Fatigue is a common, complex, subjective experience for patients with cancer receiving treatment.
- Thorough assessment, including patients’ self-reports, and ongoing monitoring and evaluation are critical for early identification and treatment.
- Patient and family education and counseling about cancer-related fatigue are important to facilitate understanding that fatigue is a normal symptom of cancer treatment.
- Physical activity and psychosocial interventions are beneficial in decreasing fatigue.
- Patients experiencing fatigue may benefit from sleep therapy and nutritional counseling.
- Cancer-related anemia should be evaluated and erythropoietin therapy prescribed when indicated.