

1.2 Asthenia (Fatigue)

Key Points

1. The subjective and multidimensional symptoms of Asthenia cause ongoing distress in more than 90% of people at Life's End.
Asthenia is prevalent with chemotherapy or radiation and persistent or progressive cancers, universal with the biologic response modifiers, and common with many other illnesses with end organ failure.
2. Assess fatigue by asking patient about its presence, severity, interference with activities, level of concern, and impact on Quality of Life.
Cognitive complaints include short-term memory loss and diminished concentration and attention. Emotional complaints include marked reactivity to feeling fatigued and decreased motivation and interest in usual activities. Practical complaints include difficulty completing tasks, struggle to overcome inactivity, and post-exertional malaise lasting several hours.
3. The pathophysiology of fatigue requires differential diagnosis that evaluates also for progressive cancer, intercurrent systemic disease, and other causal factors.
Such factors include sleep disorders, deconditioning and immobility, central-acting drugs, chronic pain or other poorly controlled symptoms, depression and anxiety.
4. Manage fatigue according to stage of underlying illness, effects of treatment, changing Goals of Care, and life expectancy.
Stop nonessential medications. Try to avoid invasive enteral and parenteral routes when hydrating or feeding. Look for easily correctable metabolic disorders. Hydration and food supplements may help.
5. Dexamethasone is the preferred steroid at Life's End and may be helpful for fatigue in the late stages of illness.
Its effect may last 2–3 months, and it has less mineral-corticoid effect. Dexamethasone 4mg po ~ Prednisone 15mg po.
6. Counsel fatigued patient to set realistic goals, conserve energy for most important activities, exercise, and practice good sleep hygiene.

Asthenia (Fatigue)

The Palliative Response



Impact

- Reported by > 90% of persons at Life's End
- Often most distressing symptom, even compared to pain or anorexia
- Limits activity
- Increases dependency
- Diminishes sense of control, and self-determination

Prevalence

- Universal with biologic response modifiers
- > 96% with chemotherapy or radiation
- > 90% with persistent or progressive cancers
- Common with many other illnesses with end organ failure
(Congestive Heart Failure, Chronic Pulmonary Disease, Chronic Renal Failure, General Debility)

Characteristics

- Subjective
Severity
Distress
Time Line
- Multidimensional
Weakness and or lack of energy
Sleepiness
Difficulty concentrating

Patient Experience Physical Symptoms

- Generalized weakness
- Limb heaviness
- Sleep disturbances
Insomnia
Hypersomnia
Unrefreshing/nonrestorative sleep

Patient Experience Cognitive Symptoms

- Short-term memory loss
- Diminished concentration
- Diminished attention

Patient Experience

Emotional Symptoms

- Marked emotional reactivity to fatigue
- Decreased motivation/interest in usual activities

Patient Experience

Practical

- Difficulty completing daily tasks
- Struggle to overcome inactivity
- Post-exertional malaise lasting several hours

Differential Diagnosis

Potential Mechanisms of Asthenia Associated with Cancer

- Progressive disease
- Cytokines
- Decreased metabolic substrates
- Change in energy metabolism
- Treatments

Chemotherapy, radiation, surgery, and biologics

Effects are cumulative and can last for months

Differential Diagnosis

Intercurrent Systemic Disease

- Anemia
- Infections
- Malnutrition
- Dehydration and electrolyte imbalance

Differential Diagnoses

- Sleep disorders
- Deconditioning and immobility
- Central-acting drugs
- Chronic pain/other poorly controlled symptoms
- Depression
- Anxiety

Assessment

- Do you have fatigue?
- How severe is your fatigue? (Use analog scale)
- Does fatigue interfere with activities?
- Are you worried about the fatigue?
- Does fatigue impact your Quality of Life? How?

Goals of Care

- Fatigue usually remains a concern throughout stages of illness at Life's End (although may respond in part to treatment)
- Modify Goals of Care by stage of illness

*Prolongation of life or cure of disease
Improving function
Comfort and supportive care*

Effect on Fatigue

Disease-Modifying Therapies

- Some therapies may worsen fatigue
Chemotherapy or radiation for cancer
- Others may improve fatigue
*Dialysis for renal failure
ACE for congestive heart failure
Oxygen for hypoxia
Opioids for pain management*

Anemia in Cancer Patients

Benefits of Erythropoetin (EPO)

Placebo Controlled Trial
Subjects randomized to EPO
Hemoglobin 8–10g/dl

- Increased hemoglobin
- Decreased use of transfusion
- Increased Quality of Life
- Effects independent of tumor response

Anemia in Cancer Patients

Burdens of EPO

- Requires injections
(EPO 10,000 units subcutaneous 3 times a week)
- Expensive and insurance may not cover \$400–\$500/month
- Variable effectiveness
*Takes weeks to be effective
May require higher doses for effect
Not always effective*

Management of Fatigue

- Stop all nonessential medications
- Look for easily correctable metabolic disorders (e.g., decreased potassium or magnesium levels)
- Hydration and food supplements may be helpful (usually try to avoid invasive enteral and parenteral routes)

Management of Fatigue

Associated with Depression

- Symptoms of major depression
*Depressed mood
Anxiety
Irritability*
- Treatment (choice depends on life expectancy)
*SSRI's
Counseling
Psycho-stimulants
Supportive management*

Management of Fatigue

Dexamethasone

- May be helpful in late stages of illness
- Effect may last for 2–3 months
- A preferred steroid in this setting
 - Less mineral-corticoid effect*
 - Prednisone results in more edema*

*Dexamethasone 4mg po ~
Prednisone 15mg po*

Use of Dexamethasone

- Dosage
 - Dexamethasone 4–8mg q am*
 - May increase to 16mg qd (equivalent to Prednisone 60mg)*
 - Usually no advantage to higher doses*
 - Avoid nighttime dosing because of insomnia*
- Side effects
 - Watch for side effects, although they are usually well tolerated*
 - Long-term complications usually not a concern*

Management of Fatigue

Sleep Hygiene

- Use Trazedone (25–100mg q hs) for insomnia instead of benzodiazepine
- Avoid napping
- Avoid stimulants in the evening
- Avoid alcohol before bed
- Exercise during the day (even sitting up in chair)

Management of Fatigue

Education/Counseling

- Goal setting
 - Assist patient to set realistic goals.*
- Energy conservation
 - Counsel saving energy for most important activities.*
- Assistance with activities of daily living
 - Enlist the assistance of family.*
 - Home Health Aide and Homemaker*
 - PT/OT evaluation for appliances and exercise*

Management of Fatigue

Exercise

- Physical Therapy (PT)
 - Evaluate appropriateness of PT to improve quality, and perhaps even quantity, of life for patients with better prognosis.*
- Up Out of Bed
 - Can significantly impact QOL for patients at Life's End*
 - Range of motion to maintain flexibility*

Asthenia at Life's End

Fatigue, weakness, and lack of stamina cause suffering in > 90% of persons at Life's End.

Asthenia (Fatigue)

Selected Readings

Overview of the Symptom of Asthenia

Chang C.H., A. Peterman, and M. Slavin. "Fatigue in Cancer Patients Compared with Fatigue in the General United States Population." *Cancer* 94 (2002): 11.

Manzullo, E. F. and C. P. Escalante. "Research into Fatigue." (review) [47 refs]. *Hematology/Oncology Clinics of North America* 16 (2002): 619–628.

Rosseau, P. "Asthenia in Terminally Ill Cancer Patients: A brief Review." *American Journal of Hospice and Palliative Care* 14 (1997): 258–261.

Stone, P., J. Hardy, K. Broadley, A. J. Tookman, A. Kurowska, and R. A'Hern. "Fatigue in Advanced Cancer: A Prospective Controlled Cross-Sectional Study." *British Journal of Cancer* 79 (1999): 1479–86.

Evaluation and Management of Asthenia

Portenoy, R. K. and L. M. Itri. "Cancer-Related Fatigue: Guidelines for Evaluation and Management." *The Oncologist* 4 (1999): 1–10.

Scialla, A., R. Cole, T. Scialla, L. Bednarz, and J. Scheerer. "Rehabilitation for Elderly Patients with Cancer Asthenia: Making a Transition to Palliative Care." *Palliative Medicine* 14 (2000): 121–127.