

**Family Medicine Preceptorship  
Discussion Cases  
Fatigue**

**Learning Objectives:**

- Define and differentiate causes of fatigue.
- Learn laboratory tests that are helpful in diagnosing fatigue-causing illnesses.
- Recommend appropriate management strategies for patients with physiologic or chronic fatigue symptoms.

**Suggested Readings:**

Rosenthal TC, Majeroni BA, et al. Fatigue: An Overview. American Family Physician. 2008; 78 (10): 1173-79. <https://www.ncbi.nlm.nih.gov/pubmed/19035066>

Salmon P, Humphris GM, et al. Why Do Primary Care Physicians Propose Medical Care to Patients with Medically Unexplained Symptoms? A New Method of Sequence Analysis to Test Theories of Patient Pressure. Psychosomatic Medicine 2006; 68: 570-77. <https://www.ncbi.nlm.nih.gov/pubmed/16868266>

Rosenthal TC and Patel V, Fatigue (Chapter 43). In: Essentials of Family Medicine, 6<sup>th</sup> ed. Philadelphia, PA: Wolters Kluwer/Lippincott, Williams and Wilkins, 2012, 513-523.

**CASE 1:**

A 53 year-old male executive presents with concerns about feeling excessively tired for the past several weeks. He hasn't been ill and denies neurologic, GI, or urinary changes. He generally sleeps poorly at night. He hasn't taken any sleep medications, but finds that he falls asleep more easily if he has a couple of glasses of bourbon before bed.

Question 1: What is your differential diagnosis of his fatigue?

*Infection, medication use (antihistamines, muscle relaxants, opioids, sedatives, antihypertensives), recent surgery, anemia, thyroid disease, rheumatologic or autoimmune disease, malignancy, OSA, liver or renal disease, CHF, depression, substance abuse, malnutrition, MS. If this was a female patient, consider pregnancy.*

Question 2: What further history would help you determine the cause of his fatigue?

*Ask about sleep schedule and habits (bedtime rituals, napping), whether his sleep is restorative. Inquire in more detail about alcohol and other substance use. Does he exercise? Eat well? Search for clues about causes of secondary fatigue: signs of infection, thyroid disease, depression, recent exposures.*

Question 3: Would you order any lab tests?

*Lab tests (to uncover causes of secondary fatigue) are indicated if fatigue has persisted longer than two weeks, but only change management in about 5% of patients. Consider checking CBC, TSH, ESR, LFTs, Cr, HIV as indicated. Imaging studies, tox screens, antibody titers are indicated only if a concern is identified in history and physical or initial lab evaluation.*

Question 4: What advice would you provide if no clear cause is identified on initial evaluation?

*-sleep hygiene:*

- *bedtime rituals (sleep promoting behaviors like warm baths/showers, reading)*
- *establish a comfortable sleep environment (cool, dark, quiet room, no screens comfortable mattress and pillows)*
- *avoid stimulation near bedtime (no caffeine or nicotine, no screens, no emotionally*

*stimulating conversations, limit food or drinks)*

- *use bedroom only for sleep and sex (not screen time, exercise, etc.)*
- *establish regular sleep-wake cycle (consistent bed and awakening times, exposure to natural light during the day and darkness at night, limit daytime napping to 20-30 min*

*-substance use: alcohol shortens sleep latency, but can cause rebound insomnia due to its short half-life.*

*-exercise is beneficial in most patients, though vigorous exercise at bedtime is generally not sleep-friendly.*

*-recommend scheduled follow-up, but not repeat lab testing.*

### **CASE 2:**

A 37 year-old healthy woman presents with fatigue for about two months. She feels like her mood is low and she has little energy or motivation to get her work done. She stopped exercising a few months ago after she sprained her ankle and never got back into the habit of her daily workouts. Her initial labs show no evidence of anemia, thyroid disease, or inflammation.

Question 1: What is her most likely diagnosis?

*This woman could have depression, or physiologic fatigue related to cessation of her fitness routine (or both).*

Question 2: How would you recommend treating her?

*Resumption of exercise would be an appropriate first step. Patients can develop fatigue very quickly upon stopping exercise. Even small amounts of physical activity can help prevent this. If this didn't help her symptoms, consider a trial of SSRI medication.*

### **CASE 3:**

For the past year, you have been following a 42 year-old woman for fatigue that started relatively suddenly and seemed unprovoked. She complains of swollen glands in her neck that always feel a little tender. She feels weak, her muscles hurt, and she feels worse if she exercises. She reports difficulty concentrating and remembering things. Your history and physical and lab evaluation have not revealed an etiology, but her tonsils and anterior cervical lymph nodes are mildly enlarged. She underwent a trial of SSRI's several months ago, but it was not helpful.

Question 1: What is her most likely diagnosis?

*This woman meets criteria for Chronic Fatigue Syndrome.*

Question 2: What advice/treatment would you recommend?

*Exercise (especially a daily 30 minute walk)*

*SSRI trial if depression is possible.*

*Other drugs (including stimulants) have no long-term benefit.*

*Encouraging people to address life stressors at work and home is advisable.*

*Cognitive therapy can be effective.*

Question 3: What is her prognosis?

*Only a small percentage of people fully recover, but most improve significantly with psychological management and support. Patients who attribute their symptoms to modifiable factors (workload, stress, depression, etc.) are more likely to recover than those who believe their symptoms are related to past viral infection. Patients who have greater than 24 hours of worsening symptoms after exercise have a poorer prognosis.*

### **CASE 4:**

A 74 year-old man in an assisted living facility is brought to clinic by his daughter who is concerned about his constant complaints about his tiredness. He has hypertension controlled by lisinopril 10 mg daily, but

is otherwise healthy. His wife passed away about a year ago. He hasn't slept as well since her death, and his appetite is low, but he doesn't think he is depressed. He has lost about 10 pounds in the past year.

Question 1: What diagnoses would you consider?

*Fatigue is common in the elderly, and often doesn't correlate in severity with underlying disease processes. An elderly man could have any of the potential causes of secondary fatigue, or physiologic fatigue. It is important, of course, to rule out depression, even if he doesn't think he is depressed. Ensure that all screenings are up to date. He may need more nutritional support. Helping his sleep, and addressing his grief are of paramount importance.*

Question 2: How would you develop a comprehensive fatigue reduction program?

*Cognitive behavioral therapy and exercise (yoga, t'ai chi, walking) are helpful in older adults. You could also consider scheduled rest, a high protein diet, and encouraging regular social engagement.*