Clinical

Urgent Care Evaluation of Fatigue

Urgent message: Fatigue can be particularly difficult to diagnose because its causes can originate from every major body system and can range from benign to life-threatening. To obtain an accurate diagnosis, use a fatigueplus approach.

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Introduction

ver heard the old (and not so funny) joke about two health-care providers having a conversation at the urgent care center?

First provider: "Ever seen a case of _____?" **Second provider:** "Turns out I have seen plenty of cases . . . just never diagnosed any!"

With a nonspecific presenting condition such as fatigue, it is difficult to obtain an adequate medical history and to perform a thorough physical examination unless the differential diagnosis is defined well enough to direct the clinician's questions. Though evaluation of fatigue is not conducive to rapid patient throughput, its assessment is actually well suited to the urgent care setting. Our bedside evaluation can clinically exclude lifethreatening etiologies while sometimes localizing a diagnosis, which can make a difference in a patient's life. A

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systematic approach serves to identify those at high risk for complication, especially in the near term (acute coronary syndrome; ACS), and in the longer term (hypothyroidism). Careful disposition and follow-up can mitigate the uncertainty that sometimes follows an initial evaluation, further reducing the incidence of missed or delayed diagnoses and, ultimately, bad outcomes.

Consider the following clinical scenarios:

- 1. A 50-year-old man who lately cannot get through the day without taking a nap—strange.
- 2. A 32-year-old mother who is unusually tired to the point that it is difficult for her to care for her newborn—is that odd?
- 3. An 82-year-old woman, accompanied by her husband, presents at the urgent care center with a 2-week history of fatigue—seriously?
- 4. A 17-year-old high school football quarterback states that he has been tired for weeks and is concerned about having enough energy for an upcoming big game—perhaps understandable?
- 5. A 62-year-old man with type 2 diabetes who has been tired all morning, now has some mild confusion, and, while waiting in the lobby, develops diaphoresis, so the receptionist recommends that he drive himself to the emergency department good idea?

Although even the most devoted urgent care clinicians may initially feel an urge to roll their eyes and then may feel resigned in each of these scenarios, there is an underlying diagnosis in each case that will be missed if not considered. This article discusses bedside evaluation of patients with fatigue through assessment focused on the differential diagnosis. The cause of fatigue in each of these patients is revealed at the end of the article.

The Consequences of Undiagnosed Fatigue

Fatigue is common, affecting 6% to 7% of the U.S. population and costing American businesses more than \$130 billion per year. Psychiatric illness is present in 60% to 80% of patients with chronic symptoms (fatigue for more than 6 months), complicating clinicians' ability to determine a definitive diagnosis with objective testing.

Initial Rapid Assessment

The initial assessment should focus on rapid assessment, looking for concerning vital signs such as tachycardia, hypotension, or tachypnea. The patient's general appearance on entering the examination room may reveal respiratory distress, an ashen or mottled color, agitation, or cachexia. It is surprising who will go to an urgent care center with an imminently life-threatening illness or even acutely decompensate in the lobby. Caution is warranted in special patient populations, because myocardial ischemia may be the sole presentation in women, patients with diabetes, and the elderly. If immediately life-threatening findings are present, consider ordering transport to an acute-care setting.

General Differential Diagnosis

Evaluating patients with fatigue begins with an exploration of the symptoms, with special emphasis on duration, associated symptoms, and previous therapies. Such a general problem is a good opportunity to use a "frontdoor, back-door" approach. In other words, after the history of present illness is further explored, then consider the differential diagnosis and ask questions specifically targeting difficult-to-miss etiologies.

Narrowing Down the Differential Diagnosis The following considerations are helpful for closing in on the conditions underlying fatigue:

- Was the onset of fatigue abrupt or insidious? Was it gradual, coming on slowly after a recent viral illness, or was it more sudden, as in after the loss of a life partner?
- What is the duration of symptoms? Has the fatigue lasted for day, weeks, months, or even years?
- Does the patient have a history of similar **symptoms?** If so, what treatment, if any did the patient undergo? Past treatments will help elucidate the patient's medical history, particularly if they have a history of depression or anxiety that might be affecting them again.
- How do the symptoms affect everyday life? Home life? Work life? Diet? Exercise? There are many clues here that might help you differentiate social or environmental causes (i.e., work or home stress) versus organic causes. Additionally, determining if the patient has had to make adjustments to their home life will help the clinician objectively quantify the severity of the symptoms (e.g., has the fatigue caused loss of work, divorce, dropping out of school?).
- What lifestyle habits does the patient have, and do these improve or exacerbate the fatigue?
 - Engaging in self-medication: Smoking tobacco or cannabis, drinking alcohol, taking prescription drugs
 - Taking antidepressants
 - Engaging in sports

It is important to note that isolated fatigue is rare, so the goal is to find fatigue-plus—in other words, fatigue plus something else that can help pinpoint the diagnosis. The diagnosis of fatigue can be particularly difficult because it can originate from every major body system. Dividing the systems into five main categories, then considering the different elements that make up each one, may assist with directed questioning:

- Cardiopulmonary
- Neurologic and mental health
- Infectious
- Rheumatologic, endocrinologic, and oncologic
- Medications and pregnancy

Etiologies of Fatigue with Directed Questions Cardiopulmonary Causes

Consideration of the etiologies in the following list warrants questions about the presence of chest pain or discomfort (worsening with exertion and decreasing with rest), shortness of breath, orthopnea, paroxysmal nocturnal dyspnea, peripheral edema, fever, cough, history of intravenous drug use, or presence of prosthetic heart valves. Ask these questions with a focus on symptom duration, keeping in mind that heart failure will often

have a more gradual onset but atypical chest pain from ischemia may be brief. Painless angina is the presentation in 40% of patients older than 65 years and in 60% to 70% of patients older than 85 years. More common presentations of ACS are dyspnea, diaphoresis, vomiting, dizziness, and fatigue. Women with ACS are more likely than men to present without chest pain and have a higher mortality rate²:

- Heart failure
- Coronary artery disease or acute myocardial infarction
- Endocarditis
- Chronic obstructive pulmonary disease
- Pneumonia
- Bronchitis

Neurologic and Mental Health Causes

The neurologic and mental health causes of fatigue are not only the hardest to definitively diagnose but also the most challenging to explain to the patient. Screening questions about paresthesias, focal weakness,

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JUCM The Journal of Urgent Care Medicine | March 2015 11







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ascending paralysis, and respiratory difficulty will localize some of the organic causes in the following list. Inquiring specifically about sadness, crying spells, increased or decreased appetite and sleep, visual or auditory hallucinations, or previous treatment for depression and anxiety may yield important information not spontaneously offered by the patient. When there is even the slightest concern, addressing the presence of suicidal ideation may save a life.

Caution should be exercised with attributing fatigue to a mental health issue, because you may be exactly correct on the diagnosis . . . but not the reason for the fatigue.

- Multiple sclerosis
- Myasthenia gravis
- Polymyositis
- Amyotrophic lateral sclerosis
- Guillain-Barré syndrome
- Sleep disorder including sleep apnea, chronic cough, gastroesophageal reflux disease
- Depression
- Anxiety or panic
- Somatization
- Bipolar disorder

Infectious Causes

An in-your-face diagnosis such as acute bacterial pneumonia is unlikely to be missed in the evaluation for an infectious etiology of fatigue, but other infectious causes are classically missed, such as subacute bacterial endocarditis and acquired immunodeficiency syndrome (AIDS), especially the acute antiretroviral syndrome consisting of fever, generalized lymphadenopathy, chills, and fatigue. Scanning the following list prompts questions about fever, headache, sore throat, swollen lymph nodes, night sweats, weight loss, or high-risk behaviors such as intravenous drug use or sex between men.

- Meningitis
- Mononucleosis or Epstein-Barr virus
- Hepatitis or cirrhosis
- Parasitic disease such as malaria
- Human immunodeficiency virus (HIV) or AIDS
- Tuberculosis
- Cytomegalovirus
- Syphilis

Autoimmune, Inflammatory, or Rheumatologic Plus Endocrine Plus Oncologic Causes

Some of the diagnoses in the following list must be confirmed by laboratory testing or imaging, but their likelihood can be suspected at the bedside in the urgent care center. The diagnoses in the list are classic for the fatigue-plus approach; the presence of arthralgias or myalgias, rash, polyuria or polydipsia or polyphagia, weight loss, prolonged cough, headaches, hematuria, hematochezia, confusion, or a history of cancer (with consideration of recurrence) will make the clinician concerned enough to pursue further testing.

- Rheumatoid arthritis
- Lupus
- Diabetes mellitus
- Thyroid abnormality
- Pituitary insufficiency
- Hypercalcemia
- Adrenal insufficiency
- Chronic kidney disease
- Liver failure
- Cancer

Medications or Substances of Abuse Plus Pregnancy
Remember that joke (again . . . not that funny) from the
beginning? A medication list transcribed by your technical
assistant or the patient may not include over-the-counter
medications and certainly will not include illicit drugs.
Obtaining accurate data on which to base your decision
will help you to pinpoint the cause of fatigue in three ways:

- 1. Excessive use may be the cause of the fatigue (benzodiazepines, sedative hypnotics, opiates).
- 2. There may be untoward effects from prolonged and excessive use (liver failure with acetaminophen, renal failure with salicylates, anemia from chemotherapy, or electrolyte disturbance or hypotension from antihypertensives).
- 3. Further exploration of the reason your patient is taking the medications may reveal a hidden underlying problem (using over-the-counter medications from chronic headaches due to brain cancer or carbon monoxide toxicity, taking proton-pump inhibitors for epigastric pain due to an ulcer or gastric carcinoma, self-medicating with alcohol for depression or anxiety).

A special note of caution: Order a pregnancy test even if the patient says that she is not sexually active. Also, clusters of family members with headaches or morning headaches raise concern for carbon-monoxide toxicity, an unusual cause of fatigue, but if it is missed, the result may be a preventable adverse outcome. Check for these conditions:

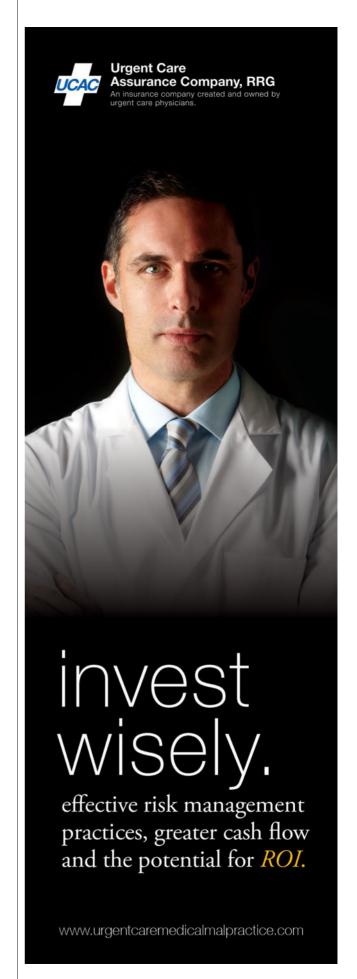
Use of sedative hypnotics, including muscle relaxants

- Use of pain medications, including over-thecounter medications such as salicylates, acetaminophen, and cough syrups
- Use of antihypertensives
- Chemotherapy
- Alcohol use
- Pregnancy
- Carbon monoxide toxicity

History of Present Illness

The differential approach will start us on the long road to a medical history in the patient with undifferentiated fatigue, but how about starting from scratch? The term fatigue may mean different things to different people, so give patients time to describe their symptoms without being prompted with questions. Fatigue is not a presenting condition for working on your throughput numbers. After the patient finishes, speaking consider asking these questions:

- Is the fatigue worse at rest or with exer**tion?** Exertional fatigue is more likely related to anemia, hypoxemia, or acute coronary syndrome.
- Is the fatigue constant or intermittent? Fatigue that is intermittent may reveal clues as to such causes as stressful situations, fatigue during after a prolonged time at home (carbon-monoxide toxicity), or in relation to medication use.
- Has the fatigue been present for over 6 months? Chronic fatigue syndrome³ is not a focus of this chapter, but it is important to check for it.
- **Are there focal aspects?** Unilateral symptoms suggest a stroke, carotid or vertebral artery dissection, or brain mass.
- Can you tell me more about the duration of your fatigue? Often patients overstate the duration of their symptoms to ensure that their symptoms are taken seriously. Give patients permission to be truthful with their history and ensure that the gravity of their condition is appreciated. Long-standing fatigue that has worsened may be difficult for the patient to elucidate if not prompted.
- Has your sleep changed so that you are sleeping more or less than usual? Association with sleep may highlight an etiology such as anxiety or depression. Early-morning wakening is a classic sign of anxiety. Depression will often cause a patient to sleep more or less than usual. Use caution to avoid diagnosis momentum⁴ (latch-



ing onto a previous provider's diagnosis of psychosocial factors).

■ How does your fatigue affect your daily activities? The answer to this question will help you quantify the severity of the fatigue. Are they able to continue to work, drive, and pay their bills? How has the fatigue affected their participation in social situations such as marriage or partnership or parenting?

Physical Examination

With such a general condition as fatigue, a head-to-toe examination is in order. The following list breaks down the findings for each body system that will point to an organic etiology of fatigue. Failure to perform a multisystem examination not only leads to potentially missed diagnoses but also gives patients the impression that you do not care or are dismissive regarding their problem. Remember this equation:

Missed Diagnoses + Inattentive Provider = Lawsuit

Taking your time and explaining to patients the purpose and findings for each part of your multisystem examination goes a long way to reduce risk, even when a diagnosis is missed or delayed.

- Eyes:
 - Papilledema (space-occupying brain lesion or pseudotumor cerebri)
 - Retinal hemorrhages or evidence of diabetic retinopathy (diabetes mellitus, hypertension)
 - Pupillary size (meiotic pupils from opiates, Horner syndrome)
 - Kayser-Fleischer rings (Wilson disease)
 - Icterus (jaundice)
- Neck:
 - Mass (cancer)
 - Lymphadenopathy (lymphoma, infection such as strep throat or mononucleosis)
 - Jugular vein distention (heart failure or valvular disease)
 - Nuchal rigidity (meningitis—this is a late finding)
 - Thyroid gland enlargement, tenderness, or nodules
- Pulmonary:
 - Rales (pneumonia, congestive heart failure, infection)
 - Decreased breath sounds (pneumothorax or effusion)

- Normal examination findings (pulmonary embolism)
- Cardiovascular:
 - Tachycardia—multiple etiologies, including
 - Dehydration
 - Ischemia or infarction
 - Pulmonary embolism
 - Irregular rhythm (arrhythmia)
 - Normal rhythm (if bradycardic, consider medications as cause, or a third-degree arteriovenous block)
- Murmur:
 - Valvular disorder
 - · Vegetations or endocarditis
 - Distant heart sounds (effusion or tamponade)
- Abdomen:
 - Inspection (scars, herpes zoster, distention)
 - Tenderness (check location; consider multiple etiologies)
 - Pulsatile mass (abdominal aortic aneurysm)
 - Hepatomegaly (hepatitis)
 - Splenomegaly (mononucleosis, multiple other etiologies)
- Skin:
 - Temperature
 - Rash
 - Changes seen with thyroid abnormalities
 - Poor turgor (dehydration)
 - Bruising (coagulopathy, leukemia, or abuse)
- Neurologic:
 - Check cranial nerve examination
 - Check for focal neurologic deficits:
 - · Muscle strength
 - Cerebellar function
 - Mental status if applicable
 - Observation of patient ambulation if applicable

Clinical Decision-Making

To assist the clinician with medical decision-making, presentations of fatigue can be categorized in the following three ways:

- Fatigue of short duration without associated symptoms or findings
- Fatigue of moderate duration without associated symptoms or findings
- Fatigue with associated symptoms or findings
- Red flag symptoms (Table 1), which may include symptoms that help to make a diagnosis and thus require a change in management or

require emergency management. Fever may prompt evaluation for strep throat (self-limiting and benign), subacute bacterial endocarditis (prompting echocardiography and intravenous antibiotics), or AIDS (managed with long-term antiretrovirals and public health recommendations for safe sex).

Short Duration Without Associated Symptoms or Findings One strategy for short-duration fatigue or fatigue with an alternative explanation such as a new baby, new job, increased stress, or family death can be a recheck in the urgent care center or with the primary-care provider in 1 or 2 weeks. At that time, if the fatigue is decreasing or has resolved, the patient can be monitored closely. If there has been no improvement, an initial workup and confirmation of lack of associated symptoms can be obtained with initial screening tests, including the following:

- Complete blood count
- Basic metabolic panel
- Thyroid tests
- Urinalysis (and pregnancy testing in women)

For patients with chronic disease and with shortduration symptoms of fatigue but no associated symptoms, testing can be targeted to the underlying process. Examples include (1) a patients with a history of diabetes in whom results of a glycated hemoglobin test may reveal poor long-term control of blood sugar and (2) patients who are receiving thyroid hormone replacement therapy in whom testing may show that the amount of medication should be increased. For those with history of long-term conditions such as breast cancer, heart failure, or arrhythmia, laboratory testing will have limited utility, but a medical history and physical examination directed to the specific complications (brain metastasis, fluid retention, or syncope and light-headedness) will be necessary to exclude disease progression.

Without associated symptoms related to cardiopulmonary processes, a screening chest x-ray and electrocardiogram will have limited utility and are not recommended.

Moderate Duration Without Associated Symptoms or **Findings**

If the symptoms have been present for a moderate amount of time—weeks to months—without a likely alternative explanation, then obtaining screening laboratory tests at the initial visit is appropriate. This can be given further consideration at the bedside using a shared

Table 1. Red Flag Symptoms in Fatigue

- Acute onset or long-term duration
- Fever
- Chest pain
- Shortness of breath
- Weight change
- Headache or neurologic symptoms
- Bleeding or bruising
- Lymphadenopathy
- Jaundice
- Edema

decision-making model. In addition to discussing the situation with the patient, elicit information from others who have accompanied the patient to the urgent care center, including their spouse or partner, children or parents, or friends. Often they will provide information the patient may be unwilling to share, and having them buy into the treatment plan will empower the patient to follow through with it and to return for a recheck.

With Associated Symptoms or Findings

When the patient has associated symptoms or findings, consider further evaluation based on the additional conditions (the fatigue-plus). This will be directed to the possible underlying cause of the symptoms, with the realization that somatic conditions may cause some of these symptoms, including chest pain, abdominal pain, difficulty concentrating, and headaches.

Treatment and Disposition

Treatment is focused on the underlying etiology of fatigue, which could be as disparate as ordering emergency transfer because of pericardial effusion that is progressing to tamponade and prescribing iron for a woman with menorrhagia whose hemoglobin level is found to be low.

Disposition is also directed at the potential underlying cause of the fatigue and may include a recommendation to return to the urgent care for follow-up on laboratory test results, a specialty referral, or a 911 call for an unstable patient with crashing vital signs. Follow-up for special-population patients is particularly important, because there are expanded differential considerations for those with diabetes, children, the elderly, and those with a history of chronic heart disease or cancer, to name just a few. These patients often require ongoing care for their specific condition, and making a call to establish or confirm primary-care follow-up is important.

Documenting that discharge instructions are actionspecific and time-specific will leave room for error should the patient decompensate. Involving the patient and family, friends, and caregivers in the discharge planning and documenting their comfort level with urgent care discharge will reinforce their responsibility for ongoing care of the patient and watching for signs that indicate a need to return to the urgent care center. This is the most important aspect of case management if you cannot find a specific reason for the fatigue. For stable and non-life-threatening conditions, a reasonable time frame for follow-up is 1 to 2 weeks, but a longer, though defined, follow-up period is acceptable if there is no immediate concern for a serious illness. Phone followup for all of these patients within 1 to 2 days is a good strategy. This should be documented in the chart and provides a bridge to a follow-up appointment.

Patients should be informed that lack of an initial diagnosis does not exclude a subsequent different diagnosis if symptoms progress, change, or do not resolve. The shared decision-making and partnership-in-healthcare models fit nicely with a nonspecific and often longstanding diagnosis such as fatigue.

So what was the cause of the fatigue for our five patients at the beginning of the chapter?

- 1. The inability of a 50-year-old man to make it through the day without taking a nap seemed strange until the health-care provider discovered that according his state medication prescription report, the man was getting prescriptions for diazepam at multiple primary-care and urgent care offices. On further questioning, he admitted having significant anxiety and that his diazepam has not been working as well, so he had been taking more to get a better effect. A candid discussion ensued, and he was referred to a detoxification center.
- 2. A 32-year-old mother who was unusually tired, finding it difficult to care for her newborn . . . was that unusual? The answer was no, sort of . . . until the health-care provider asked questions specific to postpartum depression. The patient then revealed that she had been having crying spells and feelings of sadness and hopelessness. She was cautioned to seek help if she developed suicidal or homicidal ideations and was referred for targeted care.
- 3. An 82-year-old who presented with her husband to the urgent care center with 2 weeks of fatigue... seriously? Yes. It turned out that she had mild dementia, and questioning her husband revealed that she had been taking over-the-counter aspirin for osteoarthritis. Blood work showed that she was acidotic and that her salicylate level was three times normal. Hydration and stopping the salicylates resulted in a return to baseline laboratory values.

- 4. A 17-year-old high school football quarterback states who has been tired for weeks and is concerned about an upcoming big game . . . understandable. But he reported that he had had a sore throat and fever and that his girlfriend had similar symptoms 2 weeks ago. The urgent care provider suspected infectious mononucleosis (Epstein-Barr virus) and confirmed that there was evidence of pharyngitis, cervical lymphadenopathy, and splenomegaly. 5 The provider recommended supportive care, but more importantly, the provider advised him to avoid contact sports, to prevent splenic rupture, 6,7 potentially saving the quarterback's life.
- 5. A 62-year-old man with type 2 diabetes who has been tired all morning, now has some mild confusion, and while waiting in the lobby develops diaphoresis, so the receptionist recommends that he drive himself to the emergency department good idea? No. The patient was immediately brought back to an examination room, where a fingerstick showed his blood sugar level to be 42 mg/dL. The patient rapidly felt better after drinking a glass of orange juice. The patient's medical history showed that the patient had been fasting to lose weight but had not decreased the amount of his oral hypoglycemia medication and had not increased the frequency of his fingerstick checks. If the patient's blood sugar had dropped further while he was driving to the emergency department, he and everyone around him would have been in danger.

Each of these cases was appropriately managed at the bedside in an urgent care center by obtaining a complete medical history, conducting a thorough physical examination, and ordering directed laboratory testing. Outcomes for all of these patients were improved because they received excellent care. ■

References

- 1. Canto JG, Fincher C, Kiefe CI, et al. Atypical presentations among Medicare beneficiaries with unstable angina pectoris. Am J Cardiol. 2002;90:248-253.
- 2. Canto JG, Rogers WJ, Goldberg RJ, et al. Association of age and sex with myocardial infarction symptom presentation and in-hospital mortality. JAMA. 2012;307:813-822.
- 3. Prins JB, van der Meer JW, Bleijenberg G. Chronic fatigue syndrome. Lancet. 2006;367:346-355.
- 4. Croskerry P. Achieving quality in clinical decision making: cognitive strategies and detection of bias. Acad Emerg Med. 2002;9:1184-1204.
- 5. Vetsika EK, Callan M. Infectious mononucleosis and Epstein-Barr virus. Expert Rev Mol Med. 2004; 6:1-16.
- 6. Gayer G, Zandman-Goddard G, Kosych E, et al. Spontaneous rupture of the spleen detected on CT as the initial manifestation of infectious mononucleosis. Emerg Radiol.
- 7. Aldrete JS. Spontaneous rupture of the spleen in patients with infectious mononucleosis. Mayo Clin Proc. 1992;67:910-912