

## Failure to Thrive or Failure to Think? The Importance of a Systematic Approach in the Evaluation of the Failing Elderly Patient

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### Abstract

A 67-year-old male with a history of alcohol dependence and opioid addiction was admitted to the inpatient medicine unit from the emergency department with a diagnosis of failure to thrive. He was hemodynamically stable with an oxygen saturation of 98% on 2 litres of oxygen by nasal cannula. The patient appeared thin, dishevelled and intoxicated, but was alert and conversant. He had numerous scrapes and bruises in various stages of healing across his body. His neurological exam was described as “non-focal, moving all 4 extremities.”

**Keywords:** Neurological; Symptoms; Impairment

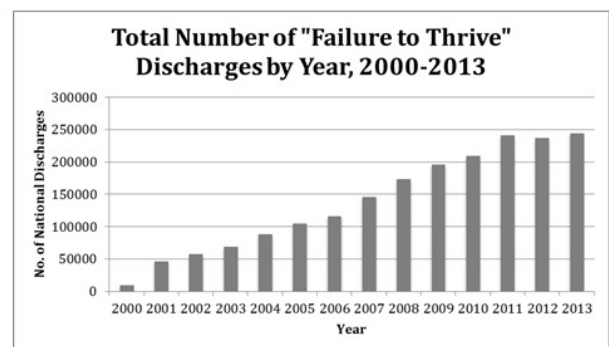
### Case Study

On interview, the patient reported having consumed alcohol in excess for more than one week, when increased leg weakness and falls developed. Two days prior to presentation, he fell at home and was unable to get up. He remained on the floor for two days drinking alcohol only. Over the last 2 years, he noted progressive decreased strength in his arms and legs with difficulty carrying heavy objects on his farm as well as a decline in short-term memory and worsening mood. He admitted to opioid addiction for several years. He reported being functionally independent but noted going days without eating, having difficulty with showering due to unsteadiness, and having difficulty with grocery shopping due to walking problems. He reported significant anhedonia, poor sleep, appetite, concentration and energy. He had limited social support locally. A neighbour bought his groceries. He drank alcohol in excess and did not currently smoke or use illicit drugs. He lived alone on a farm. He did not work. His mother had hypertension and emphysema. His brother had alcohol dependence and liver disease. He otherwise denied any constitutional symptoms. Notable home medications included mirtazapine and acetaminophen-hydrocodone.

On examination by the medicine team, there was severe cervical kyphosis. Cranial nerve II-XII functions were intact. There was diffuse loss of muscle bulk with 4/5 strength in all extremities. Reflexes were hyperactive throughout. Babinski sign was positive bilaterally. There were length-dependent deficits in vibration and pinprick sensation in all extremities. There was diminished proprioception in the lower extremities. He had a wide-based gait with instability. He had a depressed affect and exhibited short-term memory difficulties.

Bloodwork revealed a serum ethanol level 206 mg/dL. MRI of the cervical spine demonstrated cervical stenosis most prominent at C3-C4 with spinal cord compression. The patient was diagnosed with cervical spondylotic myelopathy. The patient was also diagnosed with

alcohol use disorder, opioid use disorder, substance-induced mood disorder, mild cognitive impairment, and peripheral neuropathy.



**Figure 1:** Total number of all nation-wide listed “Failure to thrive” diagnoses in adults >65 years old at discharge from 2000 to 2013. (P<0.001).

### Discussion

Since 2000, the number of US adults aged 65 and older hospitalized for failure to thrive has increased from 9,422 to 244,315 in 2013 (Figure 1; p<0.001) based on data available from the Agency for Healthcare Research and Quality [1]. All too often the diagnosis of failure to thrive is used to describe a condition where an elderly patient has failed to maintain a functional status. The reasons for the rise in hospitalizations for failure to thrive are unclear and the diagnosis in older adults has been questioned. This case provides a clear example of how a failure to thrive diagnosis fails to account for an elderly patient’s acute medical problems.

Originally, failure to thrive was a pediatric diagnosis describing a situation in which an infant has failed to achieve developmental

milestones. The term received an ICD-9 code in 1979 [2]. Failure to thrive has since been conceptualized as a geriatric “cluster of symptoms, conditions, and disabilities resulting in a variety of physiologic changes, pathologic conditions, comorbid conditions, and environmental challenges [2].” But, there is concern about its use.

The concern is that clinicians miss significant diagnoses—and opportunities for treatment—by failing to identify the actual physiological dysfunctions that are causing older adults to fail in the community. Twenty years ago, Sarkisian and Lachs suggested that the diagnosis of “failure to thrive” should be abandoned in the elderly and instead proposed an algorithmic approach to the older patient who is failing in the community [2]. Their approach focused on four major domains known to cause morbidity and mortality: impaired physical functioning, malnutrition, depression and cognitive impairment [2]. The patient in our case study had impairments in all four of these domains, and he also suffered from substance abuse.

Expanding on the approach by Sarkisian and Lachs, Robertson and Montagnini contend that the initial evaluation of a person seen for failure to thrive should include information about “physical and psychological health, functional ability, and socioenvironmental factors.” [3] While these authors do not argue for the abandonment of the diagnosis of failure to thrive, they do recommend that these patients be screened for alcohol and substance abuse [3]. Indeed, an evaluation of our patient demonstrated important issues related to alcohol and opiate abuse.

Substance use disorders are some of the leading causes of disability worldwide yet they are often overlooked in the care of older adults [4]. There are approximately 15,000 older Americans hospitalized for alcohol abuse each year and about 3,000 older Americans hospitalized for drug abuse. These numbers have persisted despite increased attention to substance abuse in the elderly. The number of older adults with a need for substance use disorder treatment is expected to rise 2.6-fold from 1.7 million in 2000 to 4.4 million by 2020 [3]. Substance use disorders make older adults susceptible to dementia and

depression, worsen functional impairment, impair the ability to perform basic activities of daily living, and often lead to varying degrees of malnutrition. While evidence-based interventions for substance use disorders exist, a systematic approach to the delivery of these practices is needed [5].

In light of this, we support the Sarkisian-Lachs algorithm and propose a modified version that includes screening for alcohol and substance use disorders to better diagnose and treat older adults who are failing in the community [2]. It is important that clinicians obtain a thorough history and physical exam on every patient with failure to thrive, and use a systematic approach such as the one suggested by Robertson and Montagnini instead of failing to think through a differential [3]. Our case illustrates how substance abuse can obscure clinical presentations and delay the diagnosis of major comorbidities, so clinicians must have an increased index of suspicion. A systematic approach will likely reveal one or more causes of the patient’s functional decline.

### Acknowledgment

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