

Have you RULED O²uT medical illness in the presumptive psychiatric patient?

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What a practitioner might identify and report as “psychiatric” symptoms or signs cannot always be explained in terms of psychological stress or a psychiatric disorder. In fact, a range of medical¹ and neurologic² illnesses can manifest in ways that appear psychiatric in nature. Common examples are sleep and thyroid disorders; deficiencies of vitamin D, folate, and B₁₂; Parkinson’s disease; and anti-*N*-methyl-D-aspartate receptor autoimmune encephalitis.

People who have a medical illness with what appear to be psychiatric manifestations often elude identification and diagnosis because they do not visit a health care provider for any of several reasons, including difficulty obtaining health insurance. Instead, they might seek care in an emergency room (ER).

When such patients present for evaluation, it is easy—especially in a fast-paced ER—to miss the underlying cause of their illness. Some are then treated on the assumption that their diagnosis is psychiatric, while their medical illness goes unidentified.³

We propose a mnemonic, **RULED O²uT**, as a reminder in the ER (and any other setting) of the need to rule out physical illness before treating a patient for a psychiatric disorder. To demonstrate how the work-up of a patient whose medical illness was obscured by psychiatric signs and symptoms could benefit from applying **RULED O²uT**, we also present a case.

CASE REPORT

A man with a medical illness who presented with psychiatric symptoms

Mr. Z, in his late 40s, is brought to the ER by his sister for evaluation of depressed mood

of 6 to 8 months’ duration. He has no psychiatric history.

On evaluation, Mr. Z does not remember an event or stressors that could have triggered depression. He describes complete loss of motivation for activities of daily living, such as personal grooming. He has stopped leaving the house and meeting friends and family members.

Mr. Z’s sister is concerned for his well-being because he has been living without heat and electricity, which were disconnected for non-payment. Mr. Z reveals that he has not seen his primary care physician “for 20 or 25 years,” although he recently sought care in the ER of another hospital because of mild gait instability for several months.

Mr. Z has a blunted affect, with linear and goal-directed thought processes. He denies suicidal ideation. Laboratory testing, including a comprehensive metabolic panel, complete blood count, and urine toxicology and urinalysis, are negative.

A non-contrast CT scan of the head reveals foci of low attenuation in the left frontal corona radiata. Follow-up MRI of the brain, with and without contrast, shows extensive supratentorial and infratentorial demyelinating lesions consistent with multiple sclerosis (MS). Several cerebral lesions in the white matter are consistent with active demyelination.

Mr. Z is admitted to the neurology service and started on methylprednisolone for MS. The psychiatry consultation-liaison team prescribes sertraline, 50 mg titrated to 100 mg, for depression.

Detailed history means better overall evaluation

Mr. Z presented to the busy ER with psychiatric symptoms. It was easy to make a

diagnosis of depression and refer him to the outpatient psychiatrist. However, a detailed history provided pertinent information about Mr. Z such as no regular medical check-ups, no family history of mental illness, and gait disturbance in absence of physical injury. This enabled the physicians to conduct a thorough evaluation including a neurologic examination, laboratory tests, and imaging of the brain.

The 8 components of RULED O²uT

Rx interactions. Review medications that the patient is taking or recently stopped taking, to rule out drug–drug interactions and adverse effects.

Unusual presentation. Be mindful of any unusual presentation. For example, sudden onset of psychiatric symptoms with seizures or hypersensitivity to the sun with depression or psychosis.

Labs. Obtain appropriate blood work, including:

- comprehensive metabolic panel
- complete blood count
- thyroid-stimulating hormone (myxedema, thyrotoxicosis)
- delta-aminolevulinic acid and porphobilinogen (acute intermittent porphyria)
- antinuclear antibody (systemic lupus erythematosus)
- B12 level
- fluorescent treponemal antibody absorption test (neurosyphilis)
- serum ceruloplasmin and copper (Wilson’s disease).

Examination. Perform a thorough examination, including a proper neurological exam. This is especially important when

you see signs, or the patient reports symptoms, that cannot be explained by depression alone. An abnormality or change in gait, for example, might be a consequence of injury or a manifestation of MS, stroke, or Parkinson’s disease. Additional testing, such as CT of the head or lumbar puncture, might be appropriate to supplement or clarify findings of the exam. Mr. Z’s neurologic exam revealed weakness in his left leg with variability in reflexes.

Drugs. Ensure that a patient presenting with new-onset psychosis is not taking dopaminergic medications or steroids and, based on results of a toxicology screen, is not under the influence of stimulants or hallucinogens.

Onset and **O**ffice. Determine:

- the time since onset of symptoms; this is crucial to differentiate psychiatric disorders and ruling out a nonpsychiatric cause of the patient’s presentation
- if the patient gets a regular medical check-up with her (his) primary care physician.

Thorough history. Obtain a thorough history so that you have a clear picture of the patient’s current situation; this includes medical history and family history of neurologic and psychiatric disorders and substance abuse.

References

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Physical illnesses can manifest as psychiatric illnesses, including sleep disorders and Parkinson’s disease