Received: 22 December 2021 | Accepted: 3 January 2022

DOI: 10.1002/emp2.12661

JACEP OPEN PODCAST CAPSULE SUMMARY

The Practice of Emergency Medicine

Is there a right tool for the job? Decision aids and altered mental status in the emergency department

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1 | WOULDN'T IT BE NICE?

Despite seeing patients with undifferentiated altered mental status (AMS) on every shift, to date we have few evidence-based tools that we can use to risk stratify this heterogeneous group of patients. Although this can be an inherently confusing patient population, previous studies have found similar themes in terms of clinical and historical features. Kanich et al found that the history of present illness, past medical history, and detailed physical exam were generally high yield from a diagnostic standpoint particularly when compared with various other diagnostic tests.[1] Although these findings make intuitive sense, the unfortunate reality is that for many altered patients, it can be essentially impossible to obtain a detailed history and complete physical exam. In recognition of this reality, a recent article in *JACEP Open* by Simkins et al brought us a clinical decision tool that attempts to use objective findings to help risk-stratify patients on the predicted need for admission.[2]

2 | THE NOT-SO-SHORT CUT

Although the idea of using a rapid decision tool to risk-stratify altered patients is potential practice changing, the reality looks somewhat problematic. Simkins et al[1] identified various findings that they then used to generate their risk-stratification tool, yet in both the validation and derivation cohorts emergency department (ED) lengths of stay were >13 hours. This prolonged evaluation, which likely reflects efforts to narrow down a broad differential in a patient who is difficult to evaluate, does raise the issue of whether patients with AMS can be consistently evaluated in a streamlined fashion. Similarly, the authors categorized all patients with "very abnormal vital signs" as high risk. These 2 findings suggest that patients with AMS may regularly require more extensive and lengthy workups or may in fact not be suitable for placement into lower risk categories.

3 | TIME TO GO HOME?

Simkins et al report that patients in the low-risk cohort all had stable vital signs, were often altered as a result of a chronic underlying condition and had a 1-year mortality rate of <2%. Based purely on mortality rates, this designation would seem appropriate, yet the reality at the bedside is often more nuanced. Although patients with decompensated chronic disease, a common cause of AMS in this study population, may not have an elevated risk of death during the next year, these patients often need further management. As anyone who has worked a shift in the ED can attest, we often find ourselves struggling to disposition a patient who does not seem to be dying but just cannot go home.

4 | IT'S ALL IN YOUR HEAD?

In this patient population, patients who had stable vital signs, an unremarkable laboratory workup, and a history of a psychiatric disorder were considered to be "low risk." Although these findings may be reassuring, they should be used with caution. As with chronic medical conditions, patients with an exacerbation of a mental illness may benefit

Supervising Editor: Henry Wang, MD, MS.

from admission and stabilization even if their overall risk of mortality is low. A bigger potential pitfall could come from the association between the presence of an underlying mental health disorder and the label of "low risk." Although patients who meet the criteria outlined by Simkins et al[1] may in fact have a low risk of mortality, the presence of a mental health condition may make a complete clinical assessment difficult, which could lead to misattribution of their symptoms to their underlying psychiatric condition.

The chief complaint of AMS continues to be a succinct label that gets applied to a dizzying array of symptoms from an equally vast list of possible underlying etiologies. Although tools similar to what we now have from Simkins et al[1] may help identify some recurring themes that let us sort these patients into broad buckets of potential risk, the inherent difficulties associated with these patients may push us away from a standardized approach and back toward an individualized assessment of the patient at the bedside.

CONFLICT OF INTEREST

The authors have no conflicts of interest.

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How to cite this article: Wood L, DeLaney MC. Is there a right tool for the job? Decision aids and altered mental status in the emergency department. *JACEP Open*. 2022;3:e12661. https://doi.org/10.1002/emp2.12661