24 November 2020

BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

Older adults with covid-19 may have delirium as the only presenting symptom.

Screening individuals for covid-19 symptoms typically includes questions related to fevers, cough, difficulty breathing, abdominal pain, diarrhea, congestion, runny nose, loss of smell or taste, and muscle aches. Now, a paper published in *JAMA Network Open* suggests that individuals over the age of 65 may have unique covid-19 symptoms not included in the above list—delirium.

Delirium is defined as a sudden change in a person's mental or cognitive status that comes as a result of a new medical problem or the exacerbation of an existing one. Delirium is frequently rapidly reversible and is usually expected to resolve once the medical condition causing the problem (such as an infection) is addressed and treated.

Researchers in the new study looked at patients ages 65 and older who presented to one of seven large academic emergency departments (EDs) across the United States who were diagnosed with covid-19. The primary outcome of interest to the researchers was presence of delirium ("altered mental status") in the ED.

Among the over 800 patients, the most common presenting medical symptoms were fever (56 percent), shortness of breath (51 percent), cough (50 percent), hypoxia (low oxygen levels) (40 percent), weakness (30 percent), *delirium* (28 percent) and fatigue (26 percent). In other words, over a quarter of the patients included in the study had covid-19 *with* delirium. Of the patients who exhibited delirium, it was the primary presenting symptom in 16 percent of cases, and 37 percent of those with delirium had neither shortness of breath nor fever. Those at risk for delirium with covid-19 tended to be 75 or older, live in a nursing home or other long term care facility, and a prior history taking psychiatric medications. In addition, risk factors that are typical for delirium were observed in this cohort of patients, including a medical history of stroke, Parkinson's disease, dementia (i.e. long-term cognitive impairment that is mostly irreversible), vision impairment, and others.

Importantly, ED providers admitted nine percent of the patients that researchers identified as having delirium. The rate of in-hospital death was 37 percent for those patients with delirium compared to 26 percent for those patients without delirium, a finding that reached "statistical significance."

This study is an important reminder that vague symptoms in older patients may be a sign of covid-19, especially given the data showing how often this population presented with delirium as the *primary* symptom. These symptoms, such as weakness and fatigue, will be important to add to the triage process for patients on arrival to the ED.

Some findings that are reassuring: 94 percent of patients with delirium (whether identified or not in the ED) were admitted to the hospital for further management, suggesting that *even if* ED providers fail to recognize delirium in these patients, it is highly unlikely to change whether or not the patient gets admitted. It is uncertain whether missing a diagnosis of delirium among older patients with covid-19 in the ED changed ED-related management or resulted in statistically increased morbidity or mortality.

At this point in the pandemic, EDs should have protocols in place that *assume all patients* with altered mental status, confusion, and/or an inability to answer covid-19 screening questions may have covid-19 until disproved by testing.

—Joshua Niforatos, MD

POLICY BRIEFING

California begins curfew. But will it do anything to slow the spread?

Since the evening of November 21st, 94 percent of Californians have been adhering to an evening curfew in order to curb the spread of covid-19. California is hardly the first state to impose such a restriction, though it remains unclear whether such policies can achieve the desired effect.

The fact that various states would seek such new aggressive measures to control covid-19 is not surprising, as the United States is recording record cases and hospitalizations day after day. An assumption underlying these curfews is that bars and restaurants open late are a significant source of coronavirus spread. While they are certainly a potential source of spread, some evidence suggests that a preponderance of transmission occurs in private gatherings, which are unaffected by the curfew. In fact, the earlier closure of bars and restaurants may have the effect of *exacerbating* coronavirus spread if people gather at home more when unable to go out to public places. The effect of curfews on the spread of the coronavirus has not been closely studied and would be hard to accomplish, given the large number of "confounding variables" that tend to coincide with policies such as curfews. Residents in locations that feel the need to enact curfews may already be altering their other behaviors that spread the virus, making it next-to-impossible to isolate the effect of curfews on disease transmission.

Moreover, the effectiveness of curfews hinges in no small part on enforcement. As infections rise at an unprecedented rate in California, the overnight stay-at-home order will go largely unchecked. Sheriffs in over a dozen California counties including Sacramento County indicated that they would not be determining who, whether in public or private gatherings, is in compliance with health orders related to the curfew and that officers would not be dispatched for that purpose. This lack of enforcement raises the question of whether the curfew is more of a "cosmetic" change, *in lieu* of delivering meaningful public health progress with respect to covid-19 transmission.

With rising cases, hospitalization rates, and deaths, aggressive efforts are needed to slow the spread of coronavirus. A patchwork of poorly-enforced curfews are likely to be inadequate to that end and may just contribute to "pandemic fatigue." *Various.*

—Miranda Yaver, PhD

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