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BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

Poor outcomes associated with obesity and hypertension, even in young adults.

A new [study](#) in *JAMA Internal Medicine* has shown that even for young adults, obesity and high blood pressure are serious risk factors when it comes to mortality and the need for mechanical ventilation. In order to answer this question, researchers used the Premier Healthcare Database (PHD) to look at outcomes of adults aged 18 to 34 admitted to the hospital with covid-19. The PHD is a frequently used database amongst health services researchers and it includes patient data from 1,030 U.S. hospitals across the United States.

Between April 1 and June 30, 2020, approximately 781,000 patients were discharged from hospitals within the PHD, of which 8.1 percent carried a diagnosis of covid-19 at discharge. Only five percent of this group were between the ages of 18 and 34. They were primarily men (57.6 percent) and Black or Hispanic (57 percent) with 61.3 percent having either obesity or morbid obesity, 18.2 percent with diabetes, and 16.1 percent with hypertension. 31 percent of these young adults required either ICU level care and/or mechanical ventilation during their hospital stay, and 2.7 percent died while in the hospital. Morbid obesity, hypertension and male sex were all identified as risk factors associated with death and the need for mechanical ventilation in this population. At least in this database, there were no disparities associated with race/ethnicity and risk of dying or requiring ventilation.

As with all large retrospective studies, numerous limitations are worth noting. The major limitation of this study is the lack of granularity of data at the patient level, which makes it difficult to assess how these patients presented to ERs and hospitals, as well as nuances of their hospital course. Furthermore, patients with covid-19 were identified with ICD-10 billing codes as opposed to direct evidence of nasopharyngeal PCR or radiographic evidence of covid-19. Finally, in these kinds of large datasets, race/ethnicity information is not always reliably identified for patients on a systematic level.

While other limitations certainly exist, this paper is important as it reveals that relatively younger age is not necessarily a protective factor for those sick enough to be admitted to the hospital infected with the SARS-CoV-2 virus. In other words, risk factors previously identified as being associated with devastating outcomes for older adult patients admitted to the hospital with covid-19—obesity, hypertension, diabetes, just to name a few—also confer an increased risk of devastating outcomes in young adults.

—Joshua Niforatos, MD

POLICY BRIEFING

Supply scarcity drags mask manufacturing.

Last month the Food and Drug Administration created a [list](#) of current medical supply shortages, and there is no indication that the situation has improved since then. The list of supplies in need augments the FDA's list of medications currently in shortage, which it has maintained for years.

In a series of new [interviews](#) published in the Associated Press with hospital administrators, supply manufacturers and administration officials, there appears to be a discrepancy between the official stance and the reality on the ground. Administrators state that it is still difficult to purchase the necessary supplies, requiring continued reuse of certain materials by providers.

The limiting factor appears to be melt-blown material, used in the production of many surgical and N95 masks. While the Defense Production Act has helped some companies scale local production of the material, much of it is still exported without restriction and many companies rely on global supply chains that cannot keep up with demand.

The current thinking focuses on encouraging domestic production of both raw materials and finished products. However, hesitation from the manufacturing sector has slowed ramp-ups in production. Federal officials have not committed to buying supplies beyond 2021, leaving many companies concerned that the millions of dollars invested in new machinery, supplies and employees will need to be written off as a loss.

Such fears are not unprecedented, as many experienced exactly this scenario during and after the H1N1 pandemic. In that instance, demand for relevant products also spiked at first. Increases in supply followed but the demand for these items quickly plummeted following resolution of the emergency. Without any assurances or monetary support, it is difficult for these businesses to justify the risks that the upfront costs will not be recuperated.

—Joshua Lesko, MD

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Brief19 is a daily executive summary of covid-19-related medical research, news, and public policy. It was founded and created by frontline emergency medicine physicians with expertise in medical research critique, health policy, and public policy.