

16 October 2020

BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

Covid-19 thought to increase abnormal blood clots. What do the CT scans say?

In addition to the direct effects of the SARS-CoV-2 virus and the typical manifestations of covid-19, several studies have found a higher than expected proportion of patients suffer abnormal blood clot formation, or what physicians call thrombotic events. These events include blood clots in the lungs (pulmonary embolisms, or “PEs”), clots in veins of the legs and/or arms (deep vein thrombosis), as well as strokes, and heart attacks. These conditions can be serious enough to be life-threatening, though many can be mild, especially if treated appropriately.

Most of the research describing the potential increase in these conditions which are thought to be among the many complications of covid-19 has been performed in the inpatient hospital setting, where patients are generally on the sicker end of the spectrum, and in whom, the baseline occurrence of these disease processes may be more common.

Now, in the journal *Academic Emergency Medicine*, [a group of researchers](#) have reported data from a single-center retrospective study in which they assessed the number of computed tomographic pulmonary angiograms (CTPAs) ordered by emergency physicians looking either to diagnose or rule out pulmonary embolisms (blood clots in the lungs). They gathered data from April 1 through May 1, 2020 and compared the findings with data from the same time period in 2019.

In 2020, two times as many CTPAs were positive for blood clots in the lung compared 2019 (19 percent versus 8 percent). Over half of the patients with blood clots in the lungs (60 percent) in 2020 were positive for SARS-CoV-2, 88 percent of whom tested positive during the same emergency department visit, rather than during prior medical encounters, either in the emergency department, or any other clinical setting.

These data add to the emerging literature suggesting SARS-CoV-2 may increase the risk of blood clots to the lungs. However, there are several potential alternative explanations for these findings, including a change in the composition of emergency department patients during the peaks of covid-19 surges; while nationwide, fewer patients were treated in emergency departments overall during the study period, those that were seen and treated may have been sicker than the typical complement of patients. Further, there may have been changes in clinician practice patterns and decisions regarding who was determined to require testing for these clots may have changed.

Regardless, this study provides an important reminder to avoid what physicians call “premature diagnostic closure”; while the symptoms of covid-19 and blood clots in the lungs may be similar (shortness of breath, low oxygen saturations, for example) and patients may have a positive test for SARS-CoV-2, these patients could still also have pulmonary embolisms simultaneously.

—Lauren Westafer DO, MPH

POLICY BRIEFING

The CDC releases “interim considerations” for school-based coronavirus testing.

Nothing projects confidence and authority like a document entitled “Interim Considerations for Testing for K-12 School Administrators and Public Health Officials.” After all, what else would the United States Centers for Disease Control and Prevention, the world’s leading organization of epidemiologists, offer other than “*considerations*,” actual guidelines? Perish the thought.

The [document](#) does not disappoint. Published this week, more than a month after most schools opened, topics covered include the various types of tests that might be used, when testing “might” be performed, who definitely *not* to test, and some reasonable, if patently obvious, recommendations on who should be prioritized, in the event that testing occurs at all. The conspicuous emphasis on the hypothetical nature of all of this amounts to something less than workable guidance for local officials and more a love letter addressed to the conditional tense.

Some insights on whom to test include offering that for “people in a school setting who show [signs or symptoms consistent with COVID-19](#) while at school,” testing “may be considered.” Beyond that something-short-of-game-changing pearl of wisdom, the CDC also allows that asymptomatic students might be tested, if moderate to high community transmission is already occurring. While this may seem trivial and uncontroversial, this itself is among the only notable and clarifying statements to be found in this document; it was not long ago that the CDC found itself embroiled in a controversy related to the need for asymptomatic testing, which the agency first spurned before being pilloried by public health experts and quickly completing a hardly face-saving about-face. (Asymptomatic testing is seen by many experts as one of the most effective ways to stop the spread of SARS-CoV-2, which is known to have a contagious period that overlaps with pre-symptomatic and asymptomatic disease).

But the overall mood of this document is an emphasis on the voluntary nature of school-based testing and a good deal of hand-waving. The CDC explicitly mentions that it is illegal to force anyone to be tested but fails to mention that it is perfectly legal to ban students from attending school who refuse to be tested when testing is indicated by a local policy. From there, the document amounts to a series of questions that local officials can ask when determining what to do next given a variety of circumstances and for a range of possible exposures. Other than suggesting that persons who had known close contact --“within 6 feet of an infected person for at least 15 minutes with confirmed or probable COVID-19”--*should* receive testing and should be quarantined as soon as possible for 14 days, a great amount of ink and pixel is spent listing series of options that officials may, can, or might, consider for various competing contingencies. This would seem to be a useful exercise given that scarcely any actionable expert guidance, let alone novel or practical insight, is supplied. *The CDC*.

—Jeremy Samuel Faust MD, MS

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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 and public policy.