

27 January 2021

BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

Blood thinners in non-severe covid-19 shows promise despite prior shortcomings.

Among the many possible treatments for covid-19, therapeutic anticoagulation—that is, treating patients with high dose blood thinners as though they had developed abnormal blood clots—has been of particular interest. Much of this has been driven by our knowledge of the covid-19 disease process, which appears to include a propensity towards potentially dangerous blood clot formation. Despite popular support for this approach among many healthcare providers on the frontlines of the covid-19 pandemic, the evidence supporting this approach has been, to date, largely gleaned from retrospective and observational studies. Such studies are prone to significant bias because whether or not patients received a treatment in such studies is not based on randomization but, rather, the subjective judgement of a treating clinician.

Several large randomized trials are underway to answer whether or not patients with covid-19 should receive anticoagulation. In late December 2020, three large randomized trials of full-dose anticoagulation for patients who were critically ill with covid-19 were [halted](#) due to futility and the potential that harm was being caused by the blood thinning medications.

Last week, the [National Institutes of Health](#) reported on another subgroup of test subjects, this time a group of more than 1,000 patients sick enough to be hospitalized but not ill enough to require either admission to an intensive care unit or invasive mechanical ventilation (i.e. intubation). During their hospitalization, patients were randomized to either therapeutic (‘full-dose’) anticoagulation (the drugs used included enoxaparin, heparin, dalteparin, and tinzaparin) or prophylactic dose anticoagulation. The researchers now report a 99 percent probability that therapeutic anticoagulation was *superior* to prophylactic anticoagulation in this patient population in preventing patients from needing mechanical ventilation or other forms of organ support. However, we do not yet know if there was an eventual difference in mortality.

These data suggest that there appears to be a sweet spot for anticoagulation in covid-19. In order for patients to benefit, they can neither be too sick nor too well. This may be because critically ill patients are more susceptible to the side effects of anticoagulation (such as clinically important internal bleeding), or perhaps they are already too sick for the intervention to make any real difference. The full trial results are not yet available and so it remains possible that the complete data will tell a different story. Nevertheless, it is likely that patients admitted to the hospital with non-severe covid-19 may soon be receiving full-dose anticoagulation routinely.

—Lauren Westafer, DO MPH

POLICY BRIEFING

Behavior changes only work if you do them. New data shows we are slipping in our efforts.

Many behavioral modifications—known as “non-pharmacologic interventions”, or NPIs—have been attempted in order to mitigate the spread of covid-19. Unfortunately, adherence to such measures has been hit-or-miss in some areas and at particular times. While data on some NPIs, like [routine](#) disinfectant use and the [closing](#) of primary and secondary schools, have led to equivocal results, others, like mask use, have “[face validity](#),” and have been seen to decrease spread (though some [state](#) and [federal](#) legislators continuing to refrain from wearing them for reasons that defy safety and, also, logic). Meanwhile, physical distancing has

continuously been encouraged and [supported](#) by the US Centers for Disease Control and Prevention as a simple deterrent against further spread of SARS-CoV-2. But have we slipped up? Are our “pods too porous?” Increased apathy and resistance to NPIs is now frequently referred to as “pandemic fatigue.”

The *Journal of the American Medical Association* recently [released](#) a study that reported on periodic self-reporting of sixteen NPIs from sixteen different “waves” between April and November of 2020. Of the 7,705 participants, the results showed that adherence with these NPIs, decreased with time regardless of geography. Behaviors that were reported to have decreased during the study period included limited close contact with people who do not live together, limiting visitors in the home, avoiding restaurants, public spaces, and crowds. Even routine activities like washing of the hands with soap and the use of hand sanitizer was reported to have decreased somewhat—and it’s possible that in this case, respondents to the survey over-estimated how well they adhered to the guidelines. The only NPI that was adhered to *more often* in November than April was mask wearing, doubling from around 40 percent to almost 80 percent of those surveyed.

With many such scientifically-backed factors to choose from and the stakes so high, one might assume that the logical thing would be for people to employ NPIs to the maximal extent possible in order to curtail this contagion. Unfortunately, from the earliest days of the virus, effective implementation has run into roadblocks. The first was the federal government’s [unwillingness](#) to establish a national plan during the Trump administration, leaving it to individual states to set standards. In one particularly unfortunate example, the Governor of Wisconsin issued a stay-at-home order that was subsequently [overturned](#) by the State Supreme Court as unconstitutional, ultimately requiring a legislative remedy in order to proceed. Other states have had more legal success in enforcing mask [mandates](#) and [curfews](#). But as these new data show, mandate or not, there is one thing that is crucial to success: individual adherence.

One proposed solution towards getting people to maintain NPIs is the notion of compromise. In December, the CDC [shortened](#) its quarantine timelines explicitly in an attempt to improve adherence. The thought was that people were more likely to complete a 7 or 10-day quarantine than a 14-day one. Whether that strategy has led to better adherence to 7-10 day quarantines or whether, alternatively people now just skimp on those shorter guidelines, is not yet known. *Various.*

—*Brief19 Policy Team*

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