

14 May 2020

BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

Lions and tigers and cats? Oh no!

Earlier in the covid-19 pandemic, a tiger in the Bronx zoo [tested positive](#) for SARS-CoV-2, after several lions and tigers in the facility began showing signs of respiratory illness. It is believed that the animals contracted the virus from a zoo employee. A new [research letter](#) in the *New England Journal of Medicine* shows that cats inoculated with SARS-CoV-2 can quickly spread the disease to other cats. None of the six cats in the study developed symptoms but all three cats who were inoculated with the virus that causes covid-19 on day zero spread the virus to a second cat who was introduced to their living space the following day. The soonest that a newly introduced feline contracted the virus from the infected cat it was housed with was two days after cohabitation began. The longest transmission time was five days. Nasal testing was positive for four to six days. While reports from the Bronx zoo and elsewhere describe humans giving the virus to animals, the opposite (i.e. transmission from cats to humans) has not been documented. However, the authors note that the ease with which cats apparently spread the virus, even when asymptomatic indicates that further study is warranted to determine whether cats or other domestic animals may be what is known as “intermediate hosts”—ie. they can be infected and spread the virus, but so not become sick from it themselves. One piece of good news can be extracted from this study: by day 24, all animals in the study had developed immunoglobulin G, the antibody with the greatest implication for the presence of long-term immunity.

—Jeremy Samuel Faust MD MS

Don't box me in. Intubating patients with added protection may not work.

As a result of the risk of aerosol generation associated with intubation, the process of placing patients onto mechanical ventilators, and widespread concerns about the adequacy and amount of PPE, the idea of using an “aerosol box,” a plexiglass box with arm holes placed over the patient's head, neck, and upper torso during intubation has been widely spread. Authors of a new study published in the [New England Journal of Medicine](#) performed a trial intubating a simulated patient both with and without aerosol boxes. The participants performed 36 intubations after training and practice with each of the boxes and the mannequin used for the simulation. The median intubation time was fastest when the aerosol box was not used (42.9 seconds) in comparison to times when an “early generation box” was used (82.1s), and a “later generation” box (52.4s). More intubations were successful on the first try when no box was used (100%) versus the early (75%) and late generation boxes (83%). Median intubation time and “first pass success” are important in avoiding dangerously low oxygen levels for patients during the procedure. In addition, PPE breaches occurred using the boxes but not when the boxes were not used. Despite the appeal of aerosol boxes, it appears that the safest and quickest way to intubate patients with suspected or confirmed covid-19 is for physicians to rely on well-established best practices. *—Lauren Westafer, DO, MPH*

POLICY BRIEFING

Details of Operation Warp Speed Concern Scientists

The White House is expected to announce details about its project [Operation Warp Speed](#), its effort to rapidly develop and deploy a coronavirus vaccine, in the coming days. In the meantime, a government official shared details with *Science*. The program has three teams, focused on development, supply and manufacturing, and distribution. The development team will winnow the more than 100 different candidates to the most likely eight, with the hope of starting human trials in July while simultaneously conducting large-scale animal safety reviews. At the same time, the supply and manufacturing group will lay the groundwork to enable large scale production of up to four different vaccines. Experts expressed concern about several aspects of the program, from its goal to produce 100 million doses by November and 300 million total by January, a target many said was unrealistic, to the decision to exclude any vaccine candidates from China and to focus on producing vaccines for Americans first. Some experts said even the program's name was problematic, as it might undermine confidence in the safety of vaccines ultimately produced. *Science*. —

Joshua Lesko, MD

Looking inside the Democrats' Proposed New Relief Package

On Tuesday, House Speaker Nancy Pelosi [introduced HR6800](#), known as “The Heroes Act,” a \$3 trillion bill that would represent a fifth round of economic stimulus. Here are the major elements of this 1800-page package: *Healthcare*: \$100 billion to the Provider Relief Fund and a new formula to determine allocation of grants; reinstating of the Advance Payment Program with a lower interest rate; creation of The Heroes' Fund, a grant program for frontline healthcare workers to receive hazard pay; new requirements for nursing facilities to provide residents with reasonable access to telephone and internet services, delineation of the process to be designated a covid-19 treatment center, the disclosures required, and the ability to transfer residents not eligible for such specific care; *Public Health*: increased regulation of the contents and quality of the National Stockpile; process to ensure supply chain integrity; increased funding for the Medical Reserve Corps; establishment of a research network. *Insurance*: increased Medicaid funding; broader access to Affordable Care Act plans; waivers of co-pays for coronavirus-associated medical expenses; subsidies to cover COBRA premiums for the newly-unemployed; *Small Business Administration*: \$10 billion for the Economic Injury Disaster Loan program; granular definitions of qualified businesses for the Paycheck Protection Program. *Local Support*: \$75 billion for contact tracing and testing; \$1 trillion in funding to state and local governments. In addition, package would: extend the \$600 weekly federal unemployment supplement through January 2021 (currently it is set to expire in July); extend all expiring visas until ninety days after cessation of the public health emergency; increase protections against foreclosure and eviction proceedings; invest \$175 billion in housing assistance, and increase food program funding.

This bill is set for a vote on Friday in the House. Senate Republicans have called the package too far-reaching and expensive. *The House of Representatives*. —*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.