

**COVID-19 Research Watch**  
May 20<sup>th</sup>, 2020

**MODELS**

**[Seroprevalence of SARS-CoV-2–Specific Antibodies Among Adults in Los Angeles County, California, on April 10-11, 2020<sup>1</sup>](#)**

Among a sample of 863 residents in Los Angeles County, the weighted prevalence was 4.65% who tested positive for SARS-CoV-2 antibodies, indicating they have an active COVID-19 infection or have been infected in the past. After taking into account the population distribution in LA county and the precision of the antibody test, the authors project that approximately 367,000 adults have SARS-CoV-2 antibodies in LA county. This projection is much greater than the number of confirmed cases reported in the county, which was 8,430 as of April 10<sup>th</sup>.

**CLINICAL PRESENTATION**

**[Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: a systematic review and meta-analysis with comparison to the COVID-19 pandemic<sup>2</sup>](#)**

This paper summarized the results of 72 research studies on psychiatric and neuropsychiatric diagnoses of patients who were actively sick or who had recovered from the three major coronavirus syndromes (SARS, MERS, and COVID-19). This review found that the majority of patients do not experience a psychiatric disorder after becoming infected with one of these coronaviruses. However, the authors found that delirium was common among COVID-19 ICU patients (65%), and that the long-term symptoms after recovery may include post-traumatic stress disorder, depression, anxiety, and fatigue. The authors also state that the majority of the studies included in this review were conducted among those who were hospitalized with severe SARS or MERS which may make the results less generalizable to the entirety of the COVID-19 pandemic where most cases are not severe.

**ZOOZOSES**

**[Infection of dogs with SARS-CoV-2<sup>3</sup>](#)**

In Hong Kong, two dogs from households with confirmed human cases of COVID-19 tested positive for SARS-CoV-2 through qRT-PCR, viral genome sequencing, and virus isolation. Viral genome sequencing revealed the RNA was identical across the human index case and the secondary canine infection. Both dogs had SARS-CoV-2 antibody responses and were asymptomatic. The findings of this study indicate the possibility of human-to-animal transmission of SARS-CoV-2, but it is unknown if SARS-CoV-2 positive dogs can infect humans or other animals.

## **NON-PHARMACEUTICAL INTERVENTIONS**

### **[Research Parameters in Patients with COVID-19 After Using Noninvasive Ventilation in the Prone Position Outside the Intensive Care Unit](#)<sup>4</sup>**

In Milan, Italy, a cross-sectional study was conducted to understand outcomes among fifteen patients with COVID-19 and acute respiratory distress syndrome (ARDS) who were being treated outside of the intensive care unit with noninvasive ventilation (NIV) in the prone position. Findings indicated a decrease in respiratory rate and higher oxygenation from baseline during and after pronation. The limitations of this study include the small sample size, no control group, and short duration of NIV in the prone position. Additional studies are required to better understand if the prone position may improve oxygenation and decrease risk of injurious ventilation among COVID-19 patients. [An editorial in JAMA](#) provides one perspective on how the findings from Sartini et al have informed the care for COVID-19 patients with ARDS on NIV.<sup>5</sup>

### **ADDITIONAL RESOURCES**

[UCSF Library COVID-19 Research and Information Resources](#)  
[UCSF Institute for Global Health Sciences COVID-19 Resources](#)  
[UC Davis One Health Institute COVID-19 FAQs](#)  
[Harvard Viswanath Lab Myths vs Facts](#)

**Note on this Document:** This document was assembled by graduate and doctoral students attending the University of California, San Francisco with the intent of facilitating the rapid dissemination of information to the global community in order to help during this time. Canice Christian and Alyssa Bercasio contributed to these summaries. This work is volunteer based.

### **References:**

- (1) Sood N, Simon P, Ebner P, et al. Seroprevalence of SARS-CoV-2–Specific Antibodies Among Adults in Los Angeles County, California, on April 10-11, 2020. *JAMA*. Published online May 18, 2020. doi:10.1001/jama.2020.8279
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- (3) Sit THC, Brackman CJ, Ip M, et al. Infection of dogs with SARS-CoV-2. DOI:10.1038/s41586-020-2334-5.
- (4) Sartini C, Tresoldi M, Scarpellini P, et al. Respiratory Parameters in Patients With COVID-19 After Using Noninvasive Ventilation in the Prone Position Outside the Intensive Care Unit. *JAMA* 2020; published online May 15. DOI:10.1001/jama.2020.7861.
- (5) Telias I, Katira BH, Brochard L. Is the Prone Position Helpful During Spontaneous Breathing in Patients With COVID-19? *JAMA* 2020; published online May 15. DOI:10.1001/jama.2020.8539.