

**COVID-19 Research Watch**  
June 5, 2020

**NON-PHARMACEUTICAL INTERVENTIONS**

**[Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis](#)<sup>1</sup>**

This systematic review and meta-analysis was conducted to determine optimal distance for prevention of person-to-person virus transmission as well as the efficacy of face masks and eye protection for virus transmission. The search yielded 172 observational studies in settings across 16 countries and six continents. Forty-four (44) comparative studies were included in a meta-analysis, accounting for 25,697 patients infected with SARS-CoV-2, SARS-CoV-1, or MERS-CoV. The findings of the review suggest that physical distancing of 1 meter or more resulted in lower virus transmission rates compared to distancing of less than 1 meter (adjusted OR 0.18, 95%CI 0.09, 0.38). Additionally, use of face masks largely reduced risk of infection, especially when using N95 masks compared with disposable surgical masks or reusable masks. Eye protection, including visors, face shields, and goggles, was also associated with lower infection rates.

**NON-CLINICAL TRENDS**

**[The impact of ethnicity on clinical outcomes in COVID-19: A systematic review](#)<sup>2</sup>**

Pan et al performed a systematic review, utilizing databases and journal articles, preprints, and grey literature, to assess the relationship between COVID-19 and ethnicity. Very few articles in database searches and medical journals reported data on ethnicity, and of those that did, a total of 5 reported no association between ethnicity and mortality. Of the preprints, 13 articles out of the 34 that reported ethnicity found that Black, Asian, and Minority Ethnic (BAME) individuals had an increased risk of COVID-19 infection, and 12 found BAME patients had worse clinical outcomes compared to White patients, including intensive therapy unit (ITU) admission and mortality outcomes. Seven (7) of the 12 grey literature reports documented worse clinical outcomes, including ITU admission, hospitalization, and mortality amongst BAME groups compared to White groups.

**[Hospitalization and Mortality among Black Patients and White Patients with Covid-19](#)<sup>3</sup>**

A retrospective cohort study was conducted to assess racial and ethnic differences in the health outcomes of COVID-19 patients in Louisiana. Hospitalization and in-hospital deaths were assessed among COVID-19 patients treated in a large integrated delivery system based in New Orleans. The total population served by this health system is 31% black non-Hispanic and 65% white non-Hispanic. Among the patients included in this analysis, 76.9% of the patients who were hospitalized with COVID-19 and 70.6% of those who died of COVID-19 were black. After adjusting for sociodemographic differences, black race was not independently associated with higher mortality, as compared to white race. Racial

differences observed for COVID-19 may reflect differences in the prevalence of chronic conditions such as obesity, diabetes, and hypertension.

## **PHARMACEUTICAL INTERVENTIONS**

### **[Effect of Convalescent Plasma Therapy on Time to Clinical Improvement in Patients with Severe and Life-threatening COVID-19 A Randomized Clinical Trial](#)**<sup>4</sup>

Among 103 patients with severe or life-threatening COVID-19, the addition of convalescent plasma therapy to standard treatment did not significantly improve the time to clinical improvement within 28 days. The addition of convalescent plasma therapy to standard treatment also did not significantly improve mortality within 28 days. The authors acknowledge the trial may have been underpowered to detect a clinically important difference and the results and interpretation of this study are limited due to early termination of the trial.

#### **NOTE TO READERS:**

Two articles we summarized on May 6th and May 27th have been retracted due to concerns regarding the validity of the data. This includes “Cardiovascular Disease, Drug Therapy, and Mortality in COVID-19” published in the *New England Journal of Medicine* and “Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis” in the *Lancet*. The journal’s respective comments on the retractions can be found [here](#) and [here](#).

#### **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. Shivali Joshi and Guntas Padda contributed to these summaries. This work is volunteer based.

#### **References:**

- 1 Chu DK, Akl EA, Duda S, *et al.* Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. *Lancet* 2020; **0**. DOI:10.1016/S0140-6736(20)31142-9.
- 2 Pan D, Sze S, Minhas JS, *et al.* The impact of ethnicity on clinical outcomes in COVID-19: A systematic review. *EClinicalMedicine* 2020; **0**: 100404.

- 3 Price-Haywood EG, Burton J, Fort D, Seoane L. Hospitalization and Mortality among Black Patients and White Patients with Covid-19. *N Engl J Med* 2020; : NEJMsa2011686.
- 4 Li L, Zhang W, Hu Y, *et al.* Effect of Convalescent Plasma Therapy on Time to Clinical Improvement in Patients With Severe and Life-threatening COVID-19: A Randomized Clinical Trial. *JAMA* 2020; published online June 3. DOI:10.1001/jama.2020.10044.