



COVID-19 Digest Issue 2

May 6, 2020

Dear Health Care Providers and Public Health Partners, welcome to the second edition of the digest.

CLINICAL PEARL

- **Emergency Use Authorization (EUA) of Remdesivir was granted by the FDA on the basis of two clinical trials**, including a randomized trial conducted by the National Institute of Allergy and Infectious Diseases. Interim analyses of the trial showed [the drug met its primary endpoint, a 31% significantly faster time to recovery](#) over controls.
 - The other trial was a phase III trial conducted by the drug manufacturer, Gilead Sciences, which found no significant difference in clinical improvement with a 5-day versus a 10-day course of the drug. Remdesivir showed efficacy for both 10-day and 5-day dosing, with both doses shortening the time to clinical improvement for 50% of patients. The time to improvement was 10 days in the 5-day treatment group and 11 days in the 10-day treatment group, with discharge from the hospital by day 14. Both [5-day and 10-day treatment durations will be considered](#), based on the severity of disease, with "severe" disease being defined by the FDA as "patients with low blood oxygen levels or needing oxygen therapy or more intensive breathing support such as a mechanical ventilator."
- Remdesivir requires intravenous administration, and both optimal dosing and treatment duration for COVID-19 are still unknown. However, under the EUA, [a 10-day dosing duration will be recommended for patients requiring invasive mechanical ventilation and/or extracorporeal membrane oxygenation \(ECMO\)](#). For a patient on a 5-day course, if clinical improvement is not demonstrated within 5 days, treatment may be extended an additional 5 days. Potential side effects of the drug include [increased levels of liver enzymes](#) and [infusion-related reactions](#). Multiple clinical trials to test Remdesivir's safety and efficacy are still ongoing, including a randomized phase III trial in patients with less severe illness, which includes a usual-care control group.

PUBLIC HEALTH UPDATE

- **Cloth Face Coverings:**
 - On April 3rd, 2020, the CDC officially revised its guidelines to encourage the use of cloth face coverings to help slow the spread of COVID-19.
 - On April 17, 2020, the San Mateo County Health Officer in conjunction with other Bay Area counties issued an order requiring individuals to wear cloth face coverings when they need to leave their home to work or obtain essential goods and services. [The general public must use a mask derived from household materials when out in a public setting](#) (e.g. going to grocery store or pharmacy).
 - It is recommended to choose thicker material when choosing which fabric to use for making a face covering. One way to test is by holding the material to bright light – if light passes through easily and the fibers of the fabric can be seen, it is not an ideal material. [High thread count materials and dense fabrics are good options](#). A 2010 study tested the permeability of different household cloth materials (e.g. sweatshirt,





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t-shirt, towel scarf) against aerosolized particles and found a filtration efficiency (inverse of penetration) between 3% and 33%.

- **Source Control:** While cloth face coverings may provide only minimal protection against respiratory droplet nuclei, the use of cloth face coverings can be effective in catching larger respiratory droplets from the wearer who could be infected (though asymptomatic) and therefore prevent transmission to others.
- In addition, the use of cloth face coverings is intended to reduce the number of times an individual touches his/her mouth and nose, which are ports of entry for the virus. Since cloth face coverings may give individuals a false sense of security, it is critical that they continue to **practice proper hand hygiene, social distancing, and self-isolation if symptomatic or post-travel.**
- The general public should refrain from using N-95 respirators and other medical-grade equipment – those should be reserved for health care workers (HCWs). HCWs should not wear cloth masks. One trial has demonstrated a significant increase in influenza-like illness when using cloth versus surgical masks or N-95 respirators.

ACADEMIC/RESEARCH PAPERS

- *NIH*
 - [Clinical Trial Shows Remdesivir Accelerates Recovery from Advanced COVID-19](#)
- *The Lancet*
 - [Remdesivir in adults with severe COVID-19: a randomised, double-blind, placebo-controlled, multicentre trial](#)
- *medRxiv (preprint)*
 - [The natural history and transmission potential of asymptomatic SARS-CoV-2 infection](#)
- *Emerging Infectious Diseases (preprint)*
 - [Evidence Supporting Transmission of Severe Acute Respiratory Syndrome Coronavirus 2 While Presymptomatic or Asymptomatic](#)
- *New England Journal of Medicine*
 - [Asymptomatic Transmission, the Achilles' Heel of Current Strategies to Control Covid-19 Presymptomatic SARS-CoV-2 Infections and Transmission in a Skilled Nursing Facility](#)
 - [Large-Vessel Stroke as a Presenting Feature of Covid-19 in the Young](#)
- *JAMA*
 - [Effect of High vs Low Doses of Chloroquine as Adjunctive Therapy for Patients Hospitalized with Severe Acute Respiratory Syndrome Coronavirus 2 \(SARS-CoV-2\) Infection - A Randomized Clinical Trial](#)

MMWR

- [Public Health Response to the Initiation and Spread of Pandemic COVID-19 in the United States, February 24–April 21, 2020](#)
- [COVID-19 Among Workers in Meat and Poultry Processing Facilities — 19 States, April 2020](#)





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HOT OFF THE (LAY) PRESS

- *Science*
 - [Why don't some coronavirus patients sense their alarmingly low oxygen levels?](#)
- *MedCity News*
 - [Novartis to test autoimmune disease drug in Covid-19 pneumonia patients](#)
- *CNBC*
 - [Quest Diagnostics rolls out direct-to-consumer coronavirus antibody tests](#)
- *Stanford News*
 - [Stanford teams with UCSF, Chan Zuckerberg Biohub to study prevalence of COVID-19 in San Francisco Bay Area](#)
- *Gates News*
 - [What you need to know about the COVID-19 vaccine](#)
- *The Wall Street Journal*
 - [Do Lockdowns Save Many Lives? In Most Places, the Data Say No](#)
- *The Economist*
 - [Would most covid-19 victims have died soon, without the virus?](#)
 - [The South is likely to have America's highest death rate from covid-19](#)
- *The New Yorker*
 - [What We Don't Know About the Coronavirus](#)
 - [Seattle's Leaders Let Scientists Take the Lead. New York's Did Not](#)
- *The New York Times*
 - [15 Children Are Hospitalized With Mysterious Illness Possibly Tied to Covid-19](#)
 - [What Is 'Covid Toe'? Maybe a Strange Sign of Coronavirus Infection](#)
 - [Why Days 5 to 10 Are So Important When You Have Coronavirus](#)
 - [As Businesses Resurface After State Shutdowns, So Does Divisiveness](#)
 - [Models Project Sharp Rise in Deaths as States Reopen](#)

EPIDEMIOLOGY UPDATES

- **US Leads the World in Confirmed COVID-19 Cases** per [Johns Hopkins University Center for Systems Science and Engineering Dashboard Website](#)
- **California COVID-19 by the numbers** are available on the [CDPH Website](#) and the [NYT Map and Table](#) (includes data by county)
- [San Mateo County COVID-19 Dashboard](#)
- [Santa Clara County COVID-19 Dashboard](#)

ADDITIONAL COVID-19 RESOURCES:

- [COVID-19 California Statewide Case Statistics](#)
- [Palo Alto Online tracking the coronavirus](#) in San Mateo and Santa Clara counties

