

COVID-19 DIGEST

From the Infectious Diseases Divisions at UCSF, ZSFG and VA

EPIDEMIOLOGY

LOCAL

The situation is evolving rapidly **with 2 confirmed community-transmitted hospitalized** cases in San Francisco announced yesterday, and many suspected cases under evaluation. Public health officials are working around the clock discussing and expanding community mitigation strategies. City and health officials are also working diligently and collaboratively to insure **health care worker safety** as our response is intensified.

NATIONAL

More cases COVID-19 are now being recognized around the United States. As of today, there are **233 cases and 14 deaths**. There have been notable increases in the Los Angeles area, as well as New York. Many of the deaths have been in elderly persons, and in particular, **elderly residential group facilities**. There have been no deaths among children in the US to date.

GLOBAL

We've reached over **100,000 cases of COVID-19** globally. Cases from **India** are now being increasingly reported. It is somewhat encouraging that new cases from China are starting to decrease, but the burden there remains high. Health care workforce shortage remains a great challenge there-- more than 3000 physicians in China have been infected and at least 22 have died—underscoring the importance of us putting the resources needed to insure health care work safety from the start.

DAILY UPDATES

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

EVALUATING PATIENTS

Increased access to COVID-19 laboratory testing is actively happening in San Francisco with a revision of the recommended isolation and testing algorithms. Each of our campuses are updating their screening algorithms, which can be found on the clinical links at the end of this digest. LabCorp has launched a COVID-19 PCR test as of today and Quest will have a test available by Monday.

EDUCATIONAL RESOURCES

The UCSF Task Force can provide updates by ID faculty on COVID-19 to your department, division or team in varying formats: a 15-minute talk, a Grand Rounds, a Q&A session or another format that might suit your group.

For more information or to schedule a session, please contact Chesa Cox at Chesa.Cox@ucsf.edu.

RESEARCH

Scientists are busy sequencing the virus and sharing on a common platform: <https://nextstrain.org/ncov>

There was recognition of **2 separate strains reported yesterday** (“L” and “S”) and a suggestion that there was correlation with clinical outcomes—but much more information on this possible association and what it means is needed. **UCSF is in the process of validating a SARS-CoV2 PCR assay** and this should be completed in the coming week with an estimated turnaround of 20

PATIENT EVALUATION

EDUCATION

RESEARCH

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FAQ

samples per day. Steve Miller, Director of the UCSF Microbiology Lab, is leading this effort. There is also ongoing work at Moffitt to bring online a **higher throughput commercial PCR instrument and a CRISPR/Cas12a-based diagnostic test** in the upcoming weeks.

1. *What is the risk of COVID-19 in pregnancy?*

Based on the limited available data it does not appear that pregnant women are more susceptible to COVID-19 and clinical presentation in pregnancy has been similar to that of non-pregnant patients. Reported complications rates to date are much lower than seen previously with SARS, but there have been reports of fetal distress and preterm delivery in some cases. There has not been convincing evidence of intrauterine maternal to child transmission, however infants born to a mother with known infection are clearly at risk and appropriate infection control measures to prevent transmission post-partum are warranted. See [Lancet](#) and [ACOG](#) articles for more information.

2. *Can asymptomatic people test positive for COVID-19 and if so, are they infectious?*

Several asymptomatic persons tested positive for COVID-19 and were the presumed sources of transmission to close contacts. In [one case](#), the chest CT was normal; the person never developed symptoms and cleared COVID on subsequent testing. The [second case](#) appears to have transmitted COVID during the incubation period prior to developing symptoms. These cases raise important questions about how much transmission is driven by those without symptoms, what the relationship is between viral load and infectiousness, and what the implications of this will be for control of this epidemic

3. *How many negative tests are enough to demonstrate that a person is no longer infected and infectious?*

The current guidance is for two sequential negative PCR tests and clinical improvement for discharge from hospital or quarantine. Post-clinical viral shedding may occur and is under study.

4. *Can people who have recovered from COVID-19 continue to harbor the virus and thus potentially spread the disease? How many negative tests are enough to demonstrate that a person is no longer infected and infectious?*

[Four patients](#) with symptomatic COVID-19 infection were released from quarantine after two negative sequential PCR tests. Subsequently, these individuals repeatedly tested positive 5-13 days later using two different assays, in the absence of symptoms. It is unknown what the quantitative viral burden was, if sufficient to cause infection to others, nor how long virus ultimately persisted. The current guidance is for two sequential negative PCR tests and clinical improvement for discharge from hospital or quarantine, but a better understanding of post-clinical viral shedding and the clinical consequences is needed.

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INSTITUTIONAL
CONTACTS FOR
CLINICAL
OPERATIONS

INSTITUTIONAL CONTACTS & REFERENCES FOR CLINICAL OPERATIONS

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UCSF Hospital Epidemiology and Infection Prevention COVID-19 webpage:

<https://infectioncontrol.ucsfmedicalcenter.org/ucsf-health-covid-19-resources>

San Francisco DPH link

<https://www.sfcddcp.org/infectious-diseases-a-to-z/coronavirus-2019-novel-coronavirus/>