

COVID-19 Research Watch
May 06, 2020

TRANSMISSION PATTERNS

[Contact Tracing Assessment of COVID-19 Transmission Dynamics in Taiwan and Risk at Different Exposure Periods Before and After Symptom Onset](#)¹

After following 2,761 close contacts from 100 confirmed COVID-19 cases, this prospective study found an average secondary attack rate of 0.7%, with this increasing if contacts were exposed within 5 days of symptom onset and decreasing if exposed later. This high transmissibility of COVID-19 in the four to five days immediately surrounding symptom onset suggests that detection and isolation of symptomatic patients may not sufficiently interrupt transmission, requiring additional measures to be taken like social distancing. A further note on the global lessons from Taiwan's comprehensive contact tracing and testing can be found [here](#).

PHARMACEUTICAL INTERVENTIONS

[Assessment of QT Intervals in a Case Series of Patients With Coronavirus Disease 2019 \(COVID-19\) Infection Treated With Hydroxychloroquine Alone or in Combination With Azithromycin in an Intensive Care Unit](#)²

This study seeks to understand the safety of hydroxychloroquine with or without azithromycin for treatment of COVID-19 patients in the ICU, regarding their prolongation of QT intervals (the measurement output from an electrocardiogram). It found that QT intervals increased in over 90% of patients within the study, with heightened QT prolongation during co-administration of the drugs. This raises safety concerns about the use of hydroxychloroquine, with or without azithromycin, especially in settings without adequate monitoring. A more in depth history of hydroxychloroquine and a further analysis of its safety can be found [here](#).

CLINICAL PRESENTATION

[Second-Trimester Miscarriage in a Pregnant Woman With SARS-CoV-2 Infection](#)³

This case study seeks to contribute to the understanding of the effect maternal SARS-CoV-2 infections have on fetuses. A 28-year-old obese, primigravida women at 19 weeks' gestation presented with SARS-CoV-2 symptoms and was found positive by nasopharyngeal swab. After being treated with acetaminophen and discharged, the patient returned two days later with fetal distress before the pregnancy ended in miscarriage. Swabs, biopsies, and an autopsy of the fetus were all negative for SARS-CoV-2 and showed no malformations. However, two swabs and biopsies of the placenta were positive for SARS-CoV-2 and negative for bacterial infection. This case suggests that although there is no evidence of vertical transmission, second trimester pregnancies in women with Covid-19 may be associated with SARS-CoV-2 placental infection. Infection of maternal placenta

resulting in miscarriage was observed in 40% of maternal MERS and SARS infections, thus suggesting further study of maternal placenta infection during the pandemic is warranted.

[Retraction- Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19](#)⁴

Due to concerns regarding the veracity of the data and analyses of the original article published in the *New England Journal of Medicine*, this publication has been retracted. Please find the full comment on this retraction [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. Izzy Polese and Caihla Petiprin contributed to these summaries. This work is volunteer based.

References:

- 1 Cheng H-Y, Jian S-W, Liu D-P, *et al.* Contact Tracing Assessment of COVID-19 Transmission Dynamics in Taiwan and Risk at Different Exposure Periods Before and After Symptom Onset. *JAMA Intern Med* 2020; published online May 1. DOI:10.1001/jamainternmed.2020.2020.
- 2 Bessière F, Rocca H, Delinière A, *et al.* Assessment of QT Intervals in a Case Series of Patients With Coronavirus Disease 2019 (COVID-19) Infection Treated With Hydroxychloroquine Alone or in Combination With Azithromycin in an Intensive Care Unit. *JAMA Cardiol* 2020; published online May 1. DOI:10.1001/jamacardio.2020.1787.
- 3 Baud D, Greub G, Frave G, *et al.* Second-Trimester Miscarriage in a Pregnant Woman With SARS-CoV-2 Infection. *JAMA - J Am Med Assoc* 2020; : 1–3.
- 4 Mehra MR, Desai SS, Kuy S, Henry TD, Patel AN. Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19. *N Engl J Med* 2020; : NEJMoa2007621.