

COVID-19 Research Watch
May 01, 2020

CLINICAL PRESENTATION

[Patients with cancer appear more vulnerable to SARS-COV-2: a multi-center study during the COVID-19 outbreak](#)¹

This study of 105 patients with cancer in Wuhan, China, found that those diagnosed with COVID-19 were at higher risk of severe outcomes - including death, ICU admission, at least one severe or critical symptom, and a higher chance of requiring mechanical ventilation - compared to a similar population of COVID-19 patients without cancer. Severe events occurred at the highest frequency among those with haematological cancer, lung cancer, and metastatic cancer (stage IV). Higher rates of death and critical symptoms were observed among those who had surgery for their cancer. Among those who had non-metastatic cancer, the frequency of severe outcomes was the same as those without cancer.

NON-PHARMACEUTICAL INTERVENTIONS

[Anesthesia and COVID-19: What We Should Know and What We Should Do](#)²

As the procedures that anesthesia providers conduct involve coming in close contact with the patients they care for, this paper outlines suggestions for those working in anesthesia in light of the COVID-19 outbreak. Additional measures suggested for those working in anesthesia include: (1) labeling operating rooms as "infectious surgery", (2) using general anesthesia to reduce possible airborne or droplet transmission, (3) sending patients to an isolated room in the ICU during recovery, (4) wearing proper PPE while transporting patients with COVID-19, (5) properly disposing of PPE in bags labeled "COVID-19", (6) following CDC guidelines for any medical personnel who may be exposed to COVID-19, which includes a 14 day quarantine.

PHARMACEUTICAL INTERVENTIONS

[Remdesivir in adults with severe COVID-19: a randomised, double-blind, placebo-controlled, multicentre trial](#)³

From February 6, 2020 to March 12, 2020, a randomised, double blind, placebo-controlled clinical trial took place at ten hospitals in Hubei, China among 237 SARS-CoV-2 positive patients 18 years or older. Patients were randomly assigned to a ten-day treatment of either a 2:1 ratio of intravenous remdesivir or a 2:1 ratio of placebo infusions. While this study was stopped early because of adverse results, the authors indicate that, though not statistically significant, patients may recover faster with remdesivir if they are treated within ten days of symptom onset. Of note, an [interim analysis](#) of the National Institutes of Health clinical trial, the Adaptive COVID-19 Treatment Trial, sponsored by the National Institute of Allergy and Infectious Diseases, indicates that remdesivir may decrease the time to recovery by 31%.⁴

SAMPLING EFFORTS

[Preliminary support for a “dry swab, extraction free” protocol for SARS-CoV-2 testing via RT-qPCR⁵](#) *

The conventional testing for SARS-CoV-2 procedures include collection of a specimen with nasopharyngeal swab, storage of the specimen in universal transport medium (UTM), RNA extraction, and RT-qPCR. With eleven paired self-collected specimens, this study sought to simplify this process by removing the UTM and RNA extraction steps and comparing the results of the simplified procedure to the conventional procedure. Results of the study indicated that dry swabs can be eluted into a TE buffered solution without jeopardizing the sensitivity of the SARS-CoV-2 test. The authors recommend additional testing with a larger cohort sample and further environmental stressors to validate findings.

* Please note articles printed from medRxiv and bioRxiv are preprints and have not yet been certified by peer review.

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](#)

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 Dai M-Y, Liu D, Liu M, *et al.* Patients with Cancer Appear More Vulnerable to SARS-CoV-2: A Multi-Center Study During the COVID-19 Outbreak. *SSRN Electron J* 2020. DOI:10.2139/ssrn.3558017.
- 2 Tang LY, Wang J. Anesthesia and COVID-19 : What We Should Know and What We Should Do. *Semin Cardiothorac Vasc Anesth* 2020. DOI:10.1177/1089253220921590.
- 3 Wang Y, Zhang D, Du G, *et al.* Remdesivir in adults with severe COVID-19 : a randomised, double-blind, placebo-controlled, multicentre trial. *Lancet* 2020; **6736**: 1–10.
- 4 NIH clinical trial shows remdesivir accelerates recovery from advanced COVID-19. *Natl Inst Allergy Infectious Dis* 2020. <https://www.niaid.nih.gov/news-events/nih-clinical-trial-shows-remdesivir-accelerates-recovery-advanced-covid-19>.
- 5 Srivatsan S, Han PD, van Raay K, *et al.* Preliminary support for a 'dry swab, extraction free' protocol for SARS-CoV-2 testing via RT-qPCR. *bioRxiv* 2020; : 1–11.