

Oropharyngeal secretions may help reduce false negative COVID-19 test results

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As the global battle to understand and eliminate the coronavirus continues, a new study published in the *Journal of Dental Research* demonstrates that testing of oropharyngeal secretions (OS) may reduce

the number of false negative results from nasal swab testing of patients who have seemingly recovered from the disease.

In the study, led by Jingzhi Ma, Tongji Hospital of Tongji Medical College of Huazhong University of Science and Technology, Department of Stomatology, Wuhan, China, a small number of patients that had tested negative through nasopharyngeal swabs were found to be positive through the testing of oropharyngeal secretions.

The first prospective study of its kind included 75 ready-for-discharge COVID-19 patients who tested negative using two consecutive nucleic acid amplification testing (NAAT) of viral samples retrieved with nasopharyngeal swabs (NPS).

Because of detection of potential false-negatives in that cohort, NAAT results of paired OS and NPS samples collected from 50 additional COVID-19 recruits during their recovery stage were used in a second prospective study to compare the diagnostic values of the two viral RNA sampling methods.

Oropharyngeal secretions obtained from 2 of the 75 subjects in the first study yielded positive results for SARS-CoV-2 nucleic acid. In the second study, OS samples were significantly more sensitive for detection of the virus than NPS samples and missed only 14% of positive cases compared with 59% for the NPS samples.

Sampling of OS is a simple procedure that can be performed in any quarantine setting and minimizes contact between [healthcare workers](#) and patients, thereby reducing the risk of virus transmission.

"The NPS [test](#) has a risk of sending home more patients who still have the infection while the OS test will make such errors in fewer patients. Although OS sampling improves the accuracy of SARS-CoV-2 nucleic

acid testing, it must be emphasized that this conclusion is based on a very small [sample](#) size," stated Ma.

More information: C. Yu et al, Oropharyngeal Secretion as Alternative for SARS-CoV-2 Detection, *Journal of Dental Research* (2020). [DOI: 10.1177/0022034520940292](https://doi.org/10.1177/0022034520940292)

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