

# RESPIRATORY PATHOGENS CIRCULATION AMONG NON-REACTIVE SARS-CoV2 PATIENTS DURING THE COVID-19 PANDEMIC IN MOROCCO

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## Abstract

**Background:** The outbreak of SARS-COV-2 has necessitated the implementation of urgent measures to suppress the transmission of the virus, including the mandatory public use of masks, regular hand washing, and social distancing. These measures may also be effective in reducing other respiratory infectious diseases, such as Influenza and severe acute respiratory illness. Therefore, the aim of the study was to estimate the prevalence of respiratory pathogens among SARS-CoV2 non-reactive patients, admitted in healthcare facilities in the context of COVID-19 management. **Material and Method:** From February to July 2021, a total number of 167 nasopharyngeal swabs from adults fitting the case definition of COVID-19 syndrome and negative to SARS-CoV-2 were enrolled from seven regional sites in Morocco. All samples were subject to a multiplexed nucleic acid test intended for the simultaneous detection and differentiation of 22 respiratory pathogens. **Results:** Our study showed that overall, the prevalence of respiratory pathogens was 43% (n=72). The main detected pathogens were typed as Human Rhinovirus (HRV) (38%), Human Coronavirus OC43 (37%) and Human Parainfluenza3 (HPIV3) (12%). **Conclusion:** Our findings support the notion that during the SARS-CoV2 pandemic, the detection of Influenza A/B, Human Metapneumovirus, and Respiratory Syncytial Virus all declined. Meanwhile, there was a noticeable increase in HRV and HCoV OC43. The dynamics of airborne transmission and epidemic patterns were thus assumed to be greatly improved by the SARS-CoV-2 prophylactic measures. These findings could be useful in guiding future prevention and management of respiratory illnesses.

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