

Respiratory Aerosols in SARS-CoV-2 PCR-Positive and -Negative Adults

In an observational cohort study at the University Hospital Frankfurt, Germany, from February 2021 to June 2021, 288 people were tested with PCR (64 positive) and aerosol concentration in the breath was measured with Palas Resp-Aer-Meter.

Main Outcomes and Measures:

Measurements of respiratory aerosols correlate with PCR tests for SARS-CoV-2 and may become a helpful tool in detecting contagious individuals via a noninvasive breath test.

There was a highly significant difference in respiratory aerosols between SARS-CoV-2 PCR-positive patients (median 1490.5/L) and -negative subjects (median 252.0/L; $p < 0.0001$). There were no significant differences in aerosol concentration due to age, sex, smoking status, or body mass index (BMI). ROC analysis showed an AUC of 0.8918.

