
Tilmelding af Foredrag

Foredragets titel

Nasopharyngeal, Oropharyngeal or Saliva Specimen for SARS-CoV-2 Testing

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Uddannelsesniveau

Level 1 evidence

Introduktion

Testing is critical in identifying cases of coronavirus disease 2019 (Covid-19) and reducing transmission. However, the best sample for the detection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) remains unclear.

Materiale/metode

We conducted a randomized crossover trial in participants who underwent nasopharyngeal swab (NPS), oropharyngeal swab (OPS), and saliva specimen collection for reverse transcriptase polymerase chain reaction (RT-PCR) SARS-CoV-2 testing. As secondary outcomes, test-related discomfort was measured with an 11-point numeric scale, and cost-effectiveness was calculated.

Resultater

A total of 26,795 test cases yielded 80,385 specimens and RT-PCR test results. Of these, 381 (1.42%) individuals were SARS-CoV-2 positive. The odds for SARS-CoV-2 detection were 8% (95% confidence interval [CI], 0% to 17%) higher for OPS specimens than for NPS specimens and 18% (95% CI, 7% to 29%) higher for NPS specimens than for saliva specimens. Combined OPS/NPS specimens had a 29% (95% CI, 22% to 37%) higher detection rate than NPS specimens. The discomfort score was highest for NPSs, at 5.76 (standard deviation [SD], 2.52), followed by OPSs, at 3.16 (SD 3.16) and saliva samples, at 1.03 (SD 18.8), $P < 0.001$. Saliva specimens were associated with the lowest cost and the incremental costs per detected SARS-CoV-2 infection for NPSs, OPSs, and NPSs/OPSs were \$3,257.85, \$1,831.62, and \$1,401.46, respectively.

Diskussion

OPSs were associated with greater sensitivity and lower test-related discomfort than NPSs for SARS-CoV-2 testing.



Combined OPS/NPS specimens had the highest sensitivity, whereas saliva sampling had the lowest sensitivity but was the least costly method for mass testing.

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