

Article (2)

Potential Use of Antigen-Based Rapid Test for SARS-CoV-2 in Respiratory Specimens in Low- Resource Settings in Egypt for Symptomatic Patients and High-Risk Contacts.

Abstract:

Objective: Because of the rapidly emerging SARS-CoV-2 pandemic and its wide public health challenges, rapid diagnosis is essential to decrease the spread. Antigen-based rapid detection tests are available; however, insufficient data about their performance are available. **Methods:** The lateral-flow immunochromatographic BIOCREREDIT COVID-19 antigen test was evaluated using nasopharyngeal swabs in a viral transport medium from patients with confirmed infection, contacts, and exposed healthcare professionals at Fayoum University Hospital in Egypt. Test performance was determined in comparison to the SARS-CoV-2 real-time reverse-transcription polymerase chain reaction (RT-PCR) test. **Results:** Three hundred ten specimens from 3 categories patients with confirmed diagnoses of COVID-19, contacts, and exposed healthcare professionals were included; 188 specimens were RT-PCR- positive, from which 81 were detected by rapid antigen test. Overall sensitivity was 43.1%. Sensitivity was significantly higher in specimens with high viral loads. **Conclusion:** Poor sensitivity of the BIOCREREDIT COVID-19 test does not permit its use for diagnosis, and it can only be used in conjunction with RT-PCR for screening.