

Letter to the Editor

COVID-19 outbreak containment poises on the sensitivity and specificity of the quick COVID-19 tests

Sir,

In the event of a pandemic such as COVID-19, past knowledge indicates that primordial prevention and primary prevention are imperative. Social distancing, respiratory etiquette, masking, and handwashing has proven to mitigate COVID-19 risk factors.¹ Rampant population testing for COVID-19 will complement the prevention and is therefore at increased demand to identify and isolate those that may be asymptomatic and others that have recovered. Serology tests or the quick COVID-19 tests can help to identify exposure to a pathogen and the subsequent immune response. RT-PCR tests, employed globally for the diagnosis of COVID-19 can indicate the presence of the viral material and by identifying antibodies to the pathogen. Given the primary goal of public health to contain the outbreak, alleviate people's anxiety, and faster-turn-around for testing results, the quick COVID-19 tests take priority over the RT-PCR tests that are time-consuming. However, the validity and effectiveness of the quick COVID-19 tests poise on its sensitivity and specificity. Low sensitivity for the quick COVID-19 tests will yield false negatives, giving a sense of false disease confirmation. Contrary to the specificity, quick COVID-19 tests that have low specificity, will yield false-positive results, falsely increasing the prevalence of the disease in a population. Recently, researchers at the Cleveland Clinic tested 239 positive COVID-19 specimens, with five quick test kits from a variety of manufacturers. Quick test kits detected the virus in 85.2% of the specimens, giving a false negative rate of 14.8%.² The manufacturers blamed the low sensitivity, on the storage of the specimens in the viral transport media. Low sensitivity of the test kit perpetuates, symptomatic asymptomatic patients in the population, instead of being in quarantine and isolation. The low specificity of the test kit attenuates the already critical healthcare resources, from the needy and

additionally spreads panic and psychosis among the population.

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