Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the Editor

Re: 'Rapid point-of-care testing for SARS-CoV-2 in a community screening setting shows low sensitivity'

We have read with interest the manuscript by Döhla et al.,[1] which has been recently published by your journal. In this manuscript, a point-of-care rapid test (POCT) for assessment of antibodies (IgG/IgM) against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is evaluated for sensitivity and specificity to detect the viral infection. The authors use a specific real-time polymerase chain reaction (RT-PCR) test as the standard laboratory reference method. They found that the antibody rapid test only detects 36.4% of the samples identified as positive by means of RT-PCR and conclude that this POCT is not recommendable for community screenings.

Basically, the authors compare a test with moderate sensitivity (~70%) to detect the viral RNA from a nasal or pharyngeal swab sample[2] using a blood test that measures the immune response of a host to the viral exposure. It is textbook knowledge that it takes about 5–10 days for IgM antibodies to become prevalent. So, it is predictable from the chosen methodology that a substantial number of PCR-positive samples have to be negative in the antibody test. It is also predictable that an antibody test is not really suitable to identify newly infected subjects. And this is not how it should be used!

A point-of-care antibody test can, for example, be used to differentiate people with past infections (and potential immunity) from people who have not had the infection yet. If it is the case, as some recent reports suggest, that people with past infections may become asymptomatic carriers of SARS-CoV-2,[3] the antibody tests may be the only way to differentiate PCR-positive subjects into two groups: (i) patients who are freshly infected and may soon develop clinical symptoms (negative IgG result) and (ii) patients who have developed antibodies and may now be asymptomatic virus spreaders (positive IgG result).

Performance evaluations of an antibody rapid test should only be carried out in a proper way and using a standard reference method (e.g., a chemiluminescence method) that measures the same analyte. It would have been a fair and scientific standard if the authors would have pointed to the limitations of their study.

In any case, our conclusion with respect to antibody testing is that the antibody detection offers vital clinical information during the course of the SARS-CoV-2 pandemic, and community testing will be warranted and necessary in the near-term future to reinstall normal life in our communities.

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