A member asked for guidance on the use of rapid antibody testing for residents at aging services organizations to determine whether an individual has been infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes coronavirus disease (COVID-19). Antibody testing is not a replacement for tests to diagnose active COVID-19 infection; the test can only indicate whether a person may have previously been infected with the virus. ECRI recommends a cautious approach to antibody testing in aging services facilities and avoiding overinterpreting information obtained from these tests.

ECRI recently published a position statement, Prudent Use of SARS-CoV-2 Antibody Testing: Avoiding False Assumptions, on its COVID-19 Resource Center which provides information about two approaches to testing—one indicates whether an individual has SARS-CoV-2 antibodies—and the other indicates whether an individual may have the virus at the time of testing. The U.S. Food and Drug Administration is using emergency use authorization to facilitate availability of the tests during this public health emergency.

Testing of residents and staff in aging services facilities is becoming an increasingly important issue at both state and federal levels because older adults—particularly those in nursing homes—are at high risk for infection, serious illness, and death from COVID-19. Facilities should consult with their state health departments regarding testing strategies for residents and staff. In the absence of state guidance, the Centers for Disease Control and Prevention has issued guidance on testing for COVID-19 in nursing homes and other long-term care facilities. Additionally, the Centers for Medicare and Medicaid Services has issued guidance for reopening nursing homes to visitors and others which includes adequate access to COVID-19 infection testing for all nursing home residents and staff among factors that should inform decision-making.

Tests authorized by FDA to detect the presence of active COVID-19 infection are polymerase chain reaction (PCR)-based nucleic acid tests that identify viral genetic material obtained from nasal or throat swabs or the saliva of individuals suspected of SARS-CoV-2 infection. The serology test detects SARS-CoV-2 antibodies in blood samples from individuals with suspected COVID-19 infections.

Both the serology and PCR-based tests can provide some useful information to help make informed, evidence-based decisions. PCR-based tests can only inform whether an individual harbors the virus during the time of testing and can be used in conjunction with patient medical history and physical examination to aid in COVID-19 diagnosis. A serology test for antibodies can determine who has the disease, who has been infected (whether asymptomatic or not), and who may have potentially acquired immunity.

Although the antibody test can be performed at the point of care and can produce fast results—typically within one hour—the PCR test is considered more accurate and reproducible; however, it is not a rapid test. Results are typically not available for several days because the test, which is technically involved and challenging to perform, is conducted by a laboratory.
A serology test to identify antibodies to SARS-CoV-2 may be tempting to use to indicate who has immunity to the virus, but there are still many unknowns that limit how to use the results. Can someone with antibodies specific to SARS-CoV-2 be reinfected? Does a mild or asymptomatic case confer the same level of immune response and immunity as more severe cases? How long does potential immunity from these antibodies last?

Until more information is available, ECRI advises organizations to avoid overestimating the information that available antibody tests provide and extrapolating findings beyond what the evidence supports.

Additional guidance on testing residents and staff in aging services facilities is available from the American Health Care Association.

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The recommendations contained in Ask ECRI do not constitute legal advice. Facilities should consult legal counsel for specific guidance and develop clinical guidance in consultation with their clinical staff.

About ECRI

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