SARS-CoV-2 screening in long-term care settings

A study of COVID-19 spread in assisted and independent living (JAMA, May 21) found that early universal surveillance to identify asymptomatic infections, coupled with prevention strategies, can reduce the likelihood of a widespread outbreak. The study involved universal testing of 80 residents in assisted living and independent living communities twice, with the second screening seven days after the first. A symptom questionnaire was also completed by residents and staff. Staff were tested once. SARS-CoV-2 was detected in three residents (3.8%), with none of them feeling ill and one reporting that he had recently had a cough and loose stool. Two of 62 staff (3.2%) tested positive for the virus, both having symptoms. One new resident infection was found during the second round of viral testing. This resident was not experiencing symptoms. All four residents who tested positive remained asymptomatic throughout the next 14 days, highlighting the challenge of controlling infection spread using symptom screening alone. Social isolation and infection prevention protocols were implemented at the site throughout the time of the study. A widespread outbreak was avoided. Two residents were hospitalized with COVID-19 prior to the study, with the study beginning rapidly after these hospitalizations.

A study of SARS-CoV-2 infection at a skilled nursing facility for veterans (CDC MMWR, May 22) found that universal and repeated testing of both residents and staff, along with isolation and cohorting of residents who test positive for COVID-19, were effective strategies for preventing infection at this skilled nursing facility. All 99 residents at the facility were tested and a total of 19 cases were diagnosed (19.2%). Fourteen of the 19 cases were asymptomatic and eight of the 14 later developed symptoms. Of 136 staff, eight were found to have COVID-19 with half of those being asymptomatic. Testing of all residents was repeated weekly until all residents had negative test results. One resident died with COVID-19. “Swift isolation and cohorting of residents with COVID-19 reduced further transmission within the SNF; residents who had positive test results were quickly transferred out of the SNF, either to the acute care hospital or directly to a separate COVID-19 recovery unit.”

Smart testing framework and strategies

A report on COVID-19 testing (Center for Infectious Disease Research and Policy (CIDRAP), University of Minnesota, May 20) provides a concise overview of types of tests and the limitations and challenges involved for each. It provides several actionable
recommendations for when and how testing should be conducted. The “smart testing” framework offers a concise set of issues policymakers need to address when developing diagnostic and surveillance strategies. The report proposes a “smart testing” approach that accounts for infrastructure, population, action, interpretation and test type. Molecular, antigen and serology tests are addressed. The report includes the following sections: Testing fundamentals, use cases for COVID-19 testing, infrastructure to support testing and the COVID-19 testing cascade (material capacity, instrument capacity, skilled labor availability, instrument use and availability, result reporting and action steps). The authors call for a blue-ribbon panel to be convened by U.S. Department of Health and Human Services to develop a national strategy for smart testing.

Superspreading during mass gatherings
A study describing a COVID-19 outbreak in Jordan that began after a wedding (CDC Emerging Infectious Diseases, May 20) demonstrates the high communicability of COVID-19 and the significant risk for SARS-CoV-2 virus transmission during mass gatherings. Of 350 wedding attendees, 76 developed COVID-19, an attack rate of 22%. Authors noted a high rate (47.4%) of asymptomatic carriers among those infected. Before the outbreak from this wedding, only one case, which was imported, had been reported in Jordan in early March. By April 10, the number of confirmed cases from the wedding constituted 24% of all COVID-19 cases in Jordan.

Risk stratification for workers
A report on standards for returning to work (NEJM, May 26) proposes a framework to help clinicians counsel patients about continuing to work in the midst of the pandemic that is based on their occupational risk of contracting SARS-CoV-2 and their risk of death if they are infected. This framework is displayed in a matrix that stratifies individual risk based on occupational and personal factors. Persons with high occupational risk of contracting COVID-19 and/or high personal risk of death from COVID-19 should consider stopping work and discuss risk with their clinician.