

Rapid Influenza Diagnostic Tests

The reliability of rapid influenza diagnostic tests depends largely on the conditions under which they are used, and are entirely based on the experience with seasonal influenza.

For detection of seasonal influenza virus infection, sensitivities of rapid diagnostic tests are approximately 50-70% when compared with viral culture or RT-PCR, and specificities of rapid diagnostic tests for influenza are approximately 90-95%. In one study, compared with RT-PCR, the sensitivity of the Quidel QuickVue® A+B test for the novel H1N1 virus was 51 percent, and the specificity was 99 percent.

False-positive (and true-negative) results are more likely to occur when influenza is uncommon in the community, which is generally at the beginning and end of an outbreak.

False-negative (and true-positive) results are more likely to occur when influenza is common in the community, which is typically at the height of an outbreak.

Test sensitivity may vary depending on when in the course of illness the specimen is collected. Respiratory specimens for testing should be collected in the first 4-5 days of illness when viral shedding is greatest.

Given these limitations, the decision of whether or not to test patients with rapid influenza diagnostic tests should be based upon the patient's presenting symptoms, whether or not cases of novel H1N1 have been confirmed in the area, and/or the patient's risk for severe disease or other complications.

How to interpret test results:

A patient testing positive for influenza B by rapid diagnostic test likely is infected with seasonal influenza B. Such a patient is unlikely to have novel H1N1 virus infection.

A patient testing positive for influenza A by rapid antigen test likely is infected with influenza A, which may be novel H1N1, seasonal H1N1, H3N2, or, rarely, an influenza A virus of animal origin.

A negative test does NOT exclude influenza, and should not be a basis for relaxing infection control measures or withholding antiviral therapy if indicated on the basis of clinical findings.