APHL ASSOCIATION OF PUBLIC HEALTH LABORATORIES

APHL Messages, Testing for Novel H1N1 5-06-09

States now have the lab test that detects novel H1N1

State and local public health labs in urban centers now have a test that will allow them to confirm infections caused by the novel H1N1 influenza (swine-like) strain. Previously CDC performed all US testing to confirm infection from this virus.

CDC developed and deployed this "real time RT-PCR" test to public health labs in only ten days. It is the only test able to specifically confirm novel H1N1 virus that is authorized by the FDA.

Such a fast turnaround time occurred because the test is based on the one developed for seasonal flu. Development and deployment of such tests to improve influenza surveillance is possible due to funding provided in the 2007 pandemic influenza supplemental.

Public health labs possess the instrumentation and the personnel trained to conduct the test, which is run on an Applied Biosystems 7500Fast instrument platform.

Public health laboratories respond to novel H1N1

Demand for testing is overwhelming in many jurisdictions that have confirmed cases.

Public health labs prepared for this and have activated their respective pandemic response plans. Lab staff are working around the clock, adding instrumentation and training additional staff to help with the surge. They are using all available resources to handle intake of specimens, processing and reporting

Some states are prioritizing testing. For example, a state might prioritize specimens for hospitalized patients or children whose illness could affect school closings.

Lab vendors are assisting, e.g., through increased production of products needed for the test and drop-shipping needed instrumentation.

Some labs still fax test results, resulting in extra steps and potential mistakes. APHL's PHLIP (Public Health Laboratory Interoperability Project) aims to create a nationwide system for electronic exchange of lab data. Currently six state labs can report test results electronically to CDC. More states are developing this capability. This project is supported by CDC.

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Deciding when to test for novel H1N1 flu

At the beginning of an outbreak, labs often test every case to learn as much as possible about the disease, e.g., severity, transmissibility and spread in the community. As more cases appear, the role of public health laboratories changes from diagnostic to surveillance.

Just as with the regular seasonal flu, once we know that the novel H1N1 virus is in a community (i.e., a school or a neighborhood), not every person in that community needs to be tested. Once there are a few confirmed cases, policymakers have enough information to make decisions about further mitigating the spread of the virus.

Not all people with suspected novel H1N1 infection need to have the diagnosis confirmed, especially if the person resides in an affected area or if the illness is mild. The latter is due to the fact that antiviral drugs are often not necessary in cases of mild illness.

CDC recommends prioritizing testing (and treatment) for those with severe respiratory illness and those at highest risk of complications from the flu. Testing recommendations may differ in some states.

Laboratory supplies needed to run H1N1 tests are limited

Funding cuts over the past several years made it harder for labs to stockpile supplies and reagents needing for public health testing.

Since 2002, APHL has stressed the importance of including laboratory reagents as part of CDC's Strategic National Stockpile. This stockpile contains large quantities of medicines and medical supplies to protect the public in the event of a public health emergency (such as a flu outbreak) severe enough to cause local supplies to run out.

Commercial Tests

At the current time, we cannot speak to the reliability and accuracy of any test developed or performed outside of public health laboratories.