SLO Public Health Laboratory Bulletin

August 2009

Pandemic H1N1 2009 Influenza virus

Current Disease activity

Transmission of the novel H1N1 influenza virus, ("swine flu") is continuing throughout California, and is likely to continue through the traditional start of the school year. Pre-school, school-age and young adults stand out as particularly susceptible to this new virus while elderly individuals are relatively protected. Virtually all infections due to Influenza Type A virus at the present time are due to the novel H1N1 influenza virus.

The San Luis Obispo Public Health Laboratory continues to perform Influenza virus Reverse transcription polymerase chain reaction (RT_PCR) to detect influenza A virus and **seasonal** H1/H3 subtyping. Specimens that yield a positive result for Influenza A virus that is also negative for the H1 and H3 seasonal subtypes is regarded as the novel H1N1 influenza virus and is reported as such. **If our laboratory reports "Influenza virus type A positive, non-subtypable" you can assume that we are detecting the Pandemic H1N1 2009 influenza virus**

This testing and reporting method will continue until further guidance is issued by state and federal public health authorities. There is no fee associated with specimens from hospitalized and expired patients; and specimens with probable novel H1N1 influenza virus test results will be referred to the state laboratory for confirmation with the specific Pandemic H1N1 2009 confirmatory PCR assay.

Rapid Tests

On August 7, the CDC published "Evaluation of Rapid Diagnostic Tests for the Detection of Novel Influenza A (H1N1) virus – United States 2009" in Morbidity and Mortality weekly report (MMWR). The results of the evaluation of rapid tests revealed:

- Rapid Tests, usually enzyme immunoassay-method based tests, will detect the novel H1N1 influenza virus, <u>but not</u> in every case of infection by the new virus.
- The overall sensitivity of the rapid tests was low (40%-69%) --- meaning that a negative test result obtained by performing a rapid test on a specimen from an individual with influenza-like illness (ILI) DOES NOT rule out influenza virus --- either the new virus nor the seasonal strains -- as the diagnosis.
- A positive rapid test result for influenza A can be used for treatment decisions.
- ILI patients with a negative rapid test result should be treated empirically based on clinical suspicion, underlying medical conditions, severity of illness, and risk of complications.

Safety Guidance

Interim Biosafety Guidance for All Individuals Handling Clinical Specimens or Isolates Containing Novel H1N1 Influenza A Virus as well as Vaccine Strains

<u>What has changed</u>?

1) For those performing rapid immunoassay tests for influenza, <u>splash protection is required</u>.

2) For those performing more complex procedures (e.g., direct or indirect fluorescent antibody tests [DFA, IFA], culture, molecular assays), a Class II biosafety cabinet (BSC) in a biosafety level-2 (BSL-2) laboratory is required. Biosafety level-3 (BSL-3) practices are no longer required for viral isolation.

Quantiferon Collection Tubes

We have become aware that there may be a mismatch of the expiration dates among the three types of blood collection tubes provided for collection of specimens for Quantiferon testing. The tubes provided may not have the same expiration date and cannot be used past the expiration date.

When you draw a three-tube set, all collection tubes must be within the nearest expiration date of any tube in the set.

If this is the case, please call for replacement tubes and give the courier any unused tubes to be brought back to the Public Health Laboratory. For information on this issue please call Sharon at 781-5509.

J Beebe 8-6-09