



SAN LUIS OBISPO COUNTY *Messenger* Public Health Laboratory

October 2016

Influenza Virus Activity

The San Luis Obispo County Public Health Laboratory detected the first positive result (Type A H3) by reverse transcription PCR on a specimen collected from a county resident on Sunday October 9. This is the first detection of the new “Flu” season that began October 2 and the first since late August.

Based on Southern Hemisphere observations, it is expected that influenza type A – including AH1N1 2009 and A H3N2, and Influenza Type B Yamagata and B Victoria - will be the predominant strains to circulate in the US this season. Public health laboratories at the state and local level throughout the nation are testing specimens by the RT-PCR method and forwarding select specimens to the CDC for comprehensive characterization and analysis.

While vaccination remains the single most important prevention step, continuous surveillance for subtyping is critical since the influenza virus is renowned for chameleon-like transformation. Small changes in the viral genome, often called ‘drift’, that occur by mutation may affect the efficacy of the vaccine. A large change or ‘shift’, that can occur when the eight elements of the influenza virus genome recombine in a bird, a pig or a human infected by two dissimilar strains, would give rise to a novel strain to which all populations would be susceptible, much like occurred in the 2009-10 global pandemic with Influenza Type A H1N1.

A more commonly observed event has been the loss in effectiveness for some vaccine formulations. This year the popular Flu-Mist, or live, attenuated influenza vaccine (LAIV), is not recommended. Public health authorities are also watching for the appearance of novel influenza variants, including Type A H3N2 variants, of which 18 have been recovered in Michigan and Ohio in August. Fortunately, only one of the 18 was hospitalized and no deaths occurred.

Influenza Laboratory Surveillance

The SLO Public Health Laboratory is soliciting the submission of specimens (nasopharyngeal swab in M4 Viral transport medium; Influenza RT-PCR, Test # 50000) for seasonal influenza virus surveillance without charge. Note: These specimens can also be “reflexed” to a Respiratory PCR Panel (Test # 6310) in the event of a negative influenza test result.

Hospitals are being asked to submit specimens from patients who are hospitalized with influenza-like illness (ILI) and/or placed in an ICU – regardless of rapid test result.

Outpatient Health Care Providers are requested to submit specimens from patients with ILI and a positive rapid influenza test.

Questions on laboratory testing? Call (805) 781-5507