Influenza Surveillance Activities – Novel/Variant Influenza

Novel/Variant Influenza Overview

Novel/variant influenza is a reportable condition in Texas under the Texas Administrative Code. Novel/variant influenza is defined as a human case of infection with an influenza A virus subtype or strain that is different from circulating human influenza H1 and H3 viruses. A variant strain is designated with a 'v' following the subtype such as H3N2v. A healthcare provider may report a case of influenza that he suspects may be novel based on disease presentation, travel or exposure history. In this situation, please contact the DSHS EAIDB Influenza Surveillance Coordinator for specimen submission instructions.

Laboratory surveillance is essential for detecting novel influenza strains, especially because novel influenza may be clinically indistinguishable from seasonal influenza. Historically in Texas, cases of novel influenza have been identified through routine influenza laboratory surveillance. (See Section IVd of this handbook for information on laboratory surveillance.) In addition to laboratory surveillance, health departments can encourage healthcare providers to submit specimens for influenza testing when a patient with influenza-like illness has any of the following:

- An unexpected or unusually severe illness
- A history of international travel during the 10 days before onset
- A recent history of close contact with poultry, water fowl (ducks, geese, etc.) or swine
- A current vaccination for seasonal influenza

Cases meeting the above criteria may or may not be identified as novel influenza but are of public health interest. Although many hospital and commercial laboratories have the capability to perform PCR testing for influenza, their PCR tests may not be able to detect all types or subtypes of influenza, including novel strains. **Therefore, specimens suspected to contain a novel influenza virus should be tested at the DSHS Laboratory in Austin or at one of the Texas Laboratory Response Network (LRN) laboratories.** If an unsubtypeable strain of influenza A is identified by a Texas public health laboratory the result will be consider presumptive positive, it will be forwarded to the CDC for further identification and confirmatory testing. Confirmatory identification of novel strains can only be done by the CDC. Other laboratories in Texas that are capable of subtyping influenza A should notify the health department as soon as possible if an isolate cannot be subtyped.

A presumptive positive result for possible novel influenza should initiate an immediate public health investigation even if CDC confirmatory testing is not yet complete. DSHS EAIDB will work with the local and regional health departments to investigate the case. Because of the number of state, federal and local agencies involved, these investigations can quickly become high profile. The goals of the investigation are to identify the source of exposure, determine the extent of person-to-person spread and prevent future spread if possible. The identification of the 2009 influenza A (H1N1) pandemic started with an investigation into a novel strain of influenza identified by routine laboratory surveillance activities in both California and Texas. Guidance on

investigating novel or variant influenza cases is available in the Emerging and Acute Infectious Disease Branch Investigation Guidelines. The guidelines are found at http://www.dshs.texas.gov/IDCU/investigation/Investigation-Guidance.doc.