

Date: November 21, 2001
To: Health Care Provider
From: Linh Nguyen, MPH, Epidemiologist
Subject: Influenza Report for Week 45 (November 4-10, 2001)

Criteria for inclusion as a case of Influenza-Like Illness (ILI) are fever $\geq 100^{\circ}\text{F}$ (37.8°C) and cough or sore throat. Health care providers wishing to participate in the ongoing CCHD Influenza Surveillance Program should contact Linh Nguyen, Surveillance Coordinator, at (702) 383-1378.

Previous to this newsletter, the ILI percentages had been calculated by pooling the data from all sites. In order to minimize the effect caused when one of our larger sentinel sites is unable to report, we are now averaging the percentages from each site (weighted averages). One hundred twenty-five cases of ILI were reported during week 45. The weighted average over the 15 reporting sites is **1.2%**. The percentage of deaths attributed to pneumonia in Clark County was **7.6%** for week 45.

Utah has identified five cases of influenza this season. Although no confirmed cases of influenza have been reported in Clark County at this time, the virus may also be circulating in our community. Influenza is always a public health concern. However, due to recent events, interest in influenza will likely be heightened because the early symptoms are similar in many ways to inhalational anthrax. Early identification of influenza infections may help health care providers decide when and under what circumstances to prescribe antiviral medications. Also, distinguishing between influenza and a bacterial illness could minimize inappropriate use of antibiotics with a resultant decrease in antibiotic resistance. Information about the different tests available for diagnosing influenza is given below:

Influenza Culture: This is the most sensitive and specific laboratory test. Cultures can distinguish influenza type A from B, and can be used for subtyping positive cultures. Culture results typically take two to seven days.

Immunofluorescence Assay (or DFA): This laboratory test can distinguish influenza type A from B, but cannot distinguish between influenza subtypes. DFA tests are typically less sensitive or specific than influenza cultures, but more sensitive or specific than rapid test kits. Results typically take two to six hours.

Rapid Test: Different rapid test kits with a wide range of sensitivity and specificity are available. Few kits can distinguish influenza type A from B, and none can identify subtypes. Rapid test kits, as a whole, are less sensitive or specific than either influenza culture or DFA. However, the tests can typically be performed in your clinic, and the results are available in less than 30 minutes.

Influenza Serology: This test does not permit timely patient diagnoses. To confirm recent influenza infection, paired acute and convalescent samples must be collected at least two weeks apart. An increase in antibody levels in the convalescent sample suggests a recent influenza infection has occurred. This test is performed in a laboratory and can distinguish influenza type A from B.

There is a trade-off between timeliness of results and sensitivity/specificity when testing for influenza. Rapid test kits are useful when treatment plans depend on having very timely results, but these tests must be used with the understanding that the results are likely not to be as accurate as those from DFA or culture. For epidemiological purposes, health care providers are encouraged to submit some specimens for culture early in the influenza season. Positive cultures can yield information about influenza subtypes, which allows the Centers for Disease Control and Prevention (CDC) to determine if this year's influenza vaccine components are compatible with strains circulating in the community. These data also help CDC determine vaccine components for the next influenza season.

For most tests, nasopharyngeal aspirates or nasal washes give the most accurate results. However, if your rapid test kit or laboratory requires other specimens, follow those instructions. If swabs are to be used, Dacron, polyester or rayon-tipped swabs, and not calcium alginate or cotton swabs, should be used. Optimally, specimens should reach the laboratory within twenty-four hours and no later than seventy-two hours, after collection. Specimens should be cold and not frozen during shipping.

Guidelines issued by CDC on considerations for distinguishing influenza-like illness from inhalational anthrax may be found online at:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5044a5.htm>

Weekly updates by CDC on U.S. influenza activity are available online at:

<http://www.cdc.gov/ncidod/diseases/flu/weekly.htm>