TO: Nebraska Healthcare Providers & Laboratories

FROM: Dr. Joann Schaefer, M.D.
Nebraska Chief Medical Officer
402-471-8566 PHONE

Thomas J. Safranek, M.D.
State Epidemiologist
402-471-2937 PHONE
402-471-3601 FAX

RE: UPDATE ON GUIDANCE FOR SWINE ORIGIN INFLUENZA VIRUS (S-OIV) TESTING AND TREATMENT

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The Nebraska Health & Human Services Division of Public Health continues to work closely with our local health department (LHD) partners in addressing the various issues raised by the newly identified influenza A strain first recognized in Mexico in April 2009. This Health Alert Network Update provides updated information and guidance.

Epidemiology:
Since April 27, 2009, the Nebraska Public Health Laboratory (NPHL) has processed clinical laboratory specimens on 291 patients. Our public health laboratory performs a PCR test that can detect both seasonal influenza (H1N1, H3N2, or influenza B) and now can confirm the new variant influenza A H1N1 (S-OIV). The table below shows the results of this testing:

Current Nebraska Influenza Data (through May 12, 2009)

Date		Specimens Submitted for RT-PCR	Total Flu A Positive	Seasonal Positive H1	Seasonal Positive H3	S-OIV Positive H1	Total Flu B Positive
04/28/09	Daily Totals	15	3	2	0	1	0
04/29/09	Daily Totals	18	6	4	0	2	1
04/30/09	Daily Totals	26	6	3	0	3	4
05/01/09	Daily Totals	38	12	10	0	2	1
05/02/09	Daily Totals	35	14	9	2	3	3
05/03/09	Daily Totals	9	0	0	0	0	1
05/04/09	Daily Totals	6	1	0	0	1	0
05/05/09	Daily Totals	34	10	7	0	3	1
05/06/09	Daily Totals	31	4	1	0	3	0
05/07/09	Daily Totals	32	7	7	0	0	2
05/08/09	Daily Totals	17	7	4	0	3	3
05/09/09	Daily Totals	0	0	0	0	0	0
05/10/09	Daily Totals	26	7	5	0	2	2
05/11/09	Daily Totals	4	0	0	0	0	1
		291	**77**	**52**	**2**	**23**	**19**

Of the 291 specimens sent to NPHL for RT-PCR testing, 77 (26%) have been influenza A. Of those, 52 (68%) have been the seasonal influenza type H1, 2 (3%) have been seasonal influenza type H3 and 23 (30%) have been the new swine influenza type H1. Of the 291 specimens submitted 19 (7%) have been influenza B.

Nebraska Cases

21 NE Confirmed
1 CA Resident Confirmed
1 MO Resident Confirmed

Of note: Based on data from laboratory testing, S-OIV is affecting a younger population, with no persons reported over 62 years of age, and 16/21 (76 %) patients under 25 years of age.

Demographic		Confirmed/ Probable cases
Age	Age range	3-61 years
	Median	12
	Mean	19.28
	0-4	2
	5-24	14
	25-64	5
	65+	0
Gender	Female	8
	Male	13
Hospitalized		1
Race	Hispanic	6
	Not Hispanic	11
	Missing	4

Confirmed/Probable Cases by County (n=21) as of May 12:
Dawson (1), Douglas (2), Kimball (1), Madison (6), Pierce (1), Platte (1), Sarpy (5), Scottsbluff (1), Stanton (3)

Surveillance at Nebraska hospitals:
Nebraska's LHDs have established relationships with the infection control (IC) staff at all of our Nebraska acute care hospitals. We have asked IC staff to conduct surveillance for patients with influenza-like illness admitted to the hospital. To date, we have identified only one Nebraska in-patient with S-OIV.

Surveillance at Nebraska laboratories:
State and local health department surveillance staff maintain an established network of approximately 80 laboratories that report the total number of influenza tests performed each week, along with the total number of positive and negative tests for both influenza A and B. These tests are almost entirely rapid diagnostic tests that differentiate influenza A from influenza B, but DO NOT differentiate seasonal influenza A from the S-OIV strain of influenza A. These numbers indicate an uptick in influenza testing over the past two weeks, but do not suggest a significant increase in the number of POSITIVE influenza lab tests.

Interpretation:
We are all surprised at the persistence of seasonal influenza in the Nebraska population. For persons with influenza A on a rapid test, approximately 2/3 have seasonal influenza vs. 1/3 S-OIV.

We have NOT seen a dramatic increase in specimens submitted to the NPHL, suggesting that both the seasonal and new variant S-OIV are present but not spreading in a dramatic fashion in the Nebraska population.

Summary:
Influenza is persisting in the Nebraska population much later in the season than has occurred in the past. Circulating strains are predominantly seasonal influenza A H1N1, with a smaller amount of seasonal influenza B. A smaller amount of the new variant S-OIV is circulating but does not appear to be causing illness in a large segment of the population. Those infected with S-OIV seem to have an illness consistent with that caused by typical seasonal influenza, without excessive morbidity or mortality.

Recommendations:

1. We continue to request the Nebraska medical community to remain vigilant for influenza illness. Persons with ILI (defined as temp ≥ 100 F [38.7C] PLUS either a cough or a sore throat in the absence of a known cause) should be considered for a rapid influenza test. If the test is (+) for influenza A, a second nasopharyngeal swab/washing should be obtained for PCR at the NPHL. This test will help us track the evolution of these viruses in our population. Please indicate on your specimen submission requisition which rapid antigen test your facility uses. Requisitions can be found at our website : http://www.dhhs.ne.gov/puh/epi/flu/docs/flunphltestrequisition.pdf
2. Because of the significant number of specimens with no identifiable pathogens on PCR testing, including 291 specimens which were reported (+) for influenza A on rapid testing, we are emphasizing the need to collect a high quality nasopharyngeal specimen for PCR testing at NPHL. Those who collect these samples need to understand the method for collecting a quality NP sample. A video demonstrating how to do this is available at our website: http://www.dhhs.ne.gov/H1N1flu/clinicians.htm
3. Once an individual in a household is diagnosed with a specific strain of influenza, other household members who develop ILI are likely to be infected with the same strain. Confirmatory PCR testing is not necessary. Rapid influenza testing can be considered but is not required.
4. While public health authorities continue to recommend N95 respirators for health care workers dealing with patients suspected of influenza infection, when such devices are not available or are not practical, surgical masks should be considered on both patients and health care workers.
5. Given the absence of serious morbidity with current circulating influenza viruses, persons with influenza can be permitted to return to the workplace or school settings 24 hours following the resolution of symptoms.
6. Providers are asked to report immediately to their local health department any school, nursing home or other institutional outbreaks of influenza-like illness. In addition severe ILI disease and ILI disease in special populations such as pregnant women and health care workers should be reported promptly.