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DHEC Health Alert

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Priorities for Laboratory Testing for Swine Flu:

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In recent days information has become available regarding outbreaks of influenza in Mexico as well as the occurrence of cases in small clusters in several states which are due to a novel viral strain. This virus appears to be a recombinant strain with genes derived from swine and avian as well as from human viruses. The virus is currently being referred to as the “swine flu” virus.

DHEC laboratory testing for influenza viruses

As the swine flu virus is a Type A virus, rapid tests designed to identify either Type A or Types A and B influenza viruses can be used for screening purposes – subject to sensitivity and specificity limitations inherent in any laboratory test. Commercial laboratories can be used to further culture the virus.

The DHEC Bureau of laboratories can currently offer the following tests:

- **PCR test:** PCR testing can rapidly (within 8 hours) characterize a viral isolate as belonging to the human H1, H3, H5 or H7 groups. However, the new novel swine flu virus, although it is an “H1” virus, cannot be so characterized using reagents currently available. Thus a swine flu virus subject to DHEC’s PCR test would be reported as an “Influenza A non-subtypable virus” (report which, in of itself, may provide circumstantial evidence that the isolate is a “swine flu”). These non-sub typable isolates would then be sent to CDC’s reference laboratory in Atlanta, currently the only laboratory in the United States able to confirm and otherwise characterize swine flu isolates.
- **Viral culture:** Cultures can be performed on the same specimens submitted for PCR testing. Cultures can provide information not only about the sub-type itself, but also provide the substrate needed for anti-viral drug susceptibility testing and for further sophisticated genetic sequencing and characterization as may also be done at CDC.
- **Note regarding rapid influenza tests:** when available rapid flu tests (RFT) performed at the site of patient contact can provide valuable information regarding patients who might have swine flu. A RFT positive for influenza B can effectively rule-out swine flu, while a test positive for influenza A can provide additional rationale for subsequent PCR or culture testing according to the priorities listed below.

Guidance for respiratory specific collection is available from the DHEC website, via the Health Alert released 24 April 2009: Swine Flu Investigation and Testing Recommendations.

<http://www.scdhec.gov/health/disease/han/docs/Swine%20flu%20health%20alert.pdf>

Priorities for DHEC laboratory testing

Because of limitations in supplies and specimen processing capacity, at this time the DHEC laboratories can provide testing on specimens **only from selected patients** according to the following priorities.

Priority 1. Specimens collected from patients with:

- acute onset of an influenza-like illness AND
- recent travel (within the past 7 days) to Mexico or to a another jurisdiction* in which swine flu has been identified, AND / OR
- are part of a cluster or outbreak of influenza-like illness (e.g. occurrence of multiple cases in a school, nursing-home, prison, college dorm or other community group)

Note: in clusters involving numerous cases, typically no more than 5 specimens will be collected as these generally suffice to identify the sub-type responsible for the outbreak.

Priority 2. Specimens collected from patients with:

- acute onset of an influenza-like illness AND
- recent travel (within the past 7 days) to Mexico or to a another jurisdiction* in which swine flu has been identified

Priority 3. Specimens collected from patients with:

- acute onset of an influenza-like illness AND
- who are contacts of confirmed, probable or suspect cases of swine flu

DHEC will not test specimens collected from other patients with an acute influenza-like illness but who are not part of a cluster or outbreak, are not contacts of confirmed, probable or suspected cases, and have no history of travel to Mexico or other affected jurisdictions.

Patients who are asymptomatic are also not candidates for testing by DHEC.

* Jurisdictions with confirmed swine flu cases are identified by the CDC here (<http://www.cdc.gov/swineflu/index.htm>) for US cases. The World Health Organization provides international updates on disease outbreaks from this page (<http://www.who.int/csr/don/en/>).

CDC Case Definitions**

(adapted from www.cdc.gov/swineflu/casedef_swineflu.htm)

A. Definitions of Respiratory Illness

1. Acute respiratory illness

Recent onset of at least two of the following:

1. rhinorrhea or nasal congestion
2. sore throat
3. cough
4. fever or feverishness

2. Influenza-like illness: fever >37.8°C (100°F) plus cough or sore throat

B. Case Definitions for Infection with Swine Influenza A (H1N1) Virus

1. **A Confirmed case** of swine influenza A (H1N1) virus infection is defined as a person with an acute respiratory illness or influenza-like illness (ILI) with laboratory confirmed swine influenza A (H1N1) virus infection at CDC by one or more of the following tests:
 1. real-time RT-PCR
 2. viral culture
 3. four-fold rise in swine influenza A (H1N1) virus specific neutralizing antibodies
2. **A Probable case** of swine influenza A (H1N1) virus infection is defined as a person with an acute respiratory illness or influenza-like illness (ILI) with an influenza test that is positive for influenza A, but H1 and H3 negative.
3. **A Suspected case** of swine influenza A (H1N1) virus infection is defined as:
 1. A person with an acute respiratory illness who was a close contact to a confirmed case of swine influenza A (H1N1) virus infection while the case was ill **OR**
 2. A person with an acute respiratory illness with a recent history of contact with an animal with confirmed or suspected swine influenza A (H1N1) virus infection **OR**
 3. A person with an acute respiratory illness who has traveled to an area where there are confirmed cases of swine influenza A (H1N1) within 7 days of suspect case's illness onset.

C. Infectious Period For Confirmed Cases = 1 Day Before Onset To 7 Days After Onset Of Illness

Day before onset = Day -1

Onset day = Day 0

Days after onset = Days 1-7

** These definitions are intended for establishing the epidemiology of swine influenza in humans. The definitions to be used for determining infection control measures are found here on the CDC website: http://www.cdc.gov/swineflu/guidelines_infection_control.htm.

Guidance Regarding Treatment

Excellent guidance can be obtained from the CDC website at:

www.cdc.gov/swineflu/recommendations.htm

Addendum:

The swine influenza A (H1N1) outbreak is rapidly evolving. Therefore, it can be expected that these and other guidelines related to swine flu will be regularly updated.

DHEC Contact Information for Reportable Diseases and Reporting Requirements

Reporting of outbreaks/clusters of cases is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2009 List of Reportable Conditions available at: http://www.scdhec.gov/health/disease/docs/reportable_conditions.pdf

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices – 2009

Mail or call reports to the Epidemiology Office in each Public Health Region.

Region 1

Anderson, Oconee

220 McGee Road
Anderson, SC 29625
Phone: (864) 260-4358
Fax: (864) 260-5623
Nights / Weekends: 1-866-298-4442

Abbeville, Edgefield, Greenwood, Laurens, McCormick, Saluda

1736 S. Main Street
Greenwood, SC 29646
Phone: 1-888-218-5475
Fax: (864) 942-3690
Nights / Weekends: 1-800-420-1915

Region 2

Greenville, Pickens

PO Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 282-4139
Fax: (864) 282-4373
Nights / Weekends: 1-800-993-1186

Cherokee, Spartanburg, Union

PO Box 4217
151 E. Wood Street
Spartanburg, SC 29305-4217
Phone: (864) 596-2227, x- 210
Fax: (864) 596-3443
Nights / Weekends: 1-800-993-1186

Region 3

Chester, Lancaster, York

PO Box 817
1833 Pageland Highway
Lancaster, SC 29720
Phone: (803) 286-9948
Fax: (803) 286-5418
Nights / Weekends: 1-866-867-3886

Region 3 (continued)

Fairfield, Lexington, Newberry, Richland

2000 Hampton Street
Columbia, SC 29204
Phone: (803) 576-2749
Fax: (803) 576-2993
Nights / Weekends: 1-888-554-9915

Region 4

Clarendon, Kershaw, Lee, Sumter

PO Box 1628
105 North Magnolia Street
Sumter, SC 29150
Phone: (803) 773-5511
Fax: (803) 775-9941
Nights/Weekends: 1-877-831-4647

Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion

145 E. Cheves Street
Florence, SC 29506
Phone: (843) 661-4830
Fax: (843) 661-4859

Nights / Weekends: (843) 660-8145

Region 5

Bamberg, Calhoun, Orangeburg

PO Box 1126
1550 Carolina Avenue
Orangeburg, SC 29116
Phone: (803) 533-7199
Fax: (803) 533-7134
Nights / Weekends: (803) 954-8513

Aiken, Allendale, Barnwell

1680 Richland Avenue, W. Suite 40
Aiken, SC 29801
Phone: (803) 642-1618
Fax: (803) 643-8386
Nights / Weekends: (803) 827-8668 or
1-800-614-1519

Region 6

Georgetown, Horry, Williamsburg

1931 Industrial Park Road
Conway, SC 29526-5482
Phone: (843) 915-8804
Fax: (843) 365-0085
Nights / Weekends: (843) 381-6710

Region 7

Berkeley, Charleston, Dorchester

4050 Bridge View Drive, Suite 600
N. Charleston, SC 29405
Phone: (843) 953-0060
Fax: (843) 953-0051
Nights / Weekends: (843) 219-8470

Region 8

Beaufort, Colleton, Hampton, Jasper

219 S. Lemacks Street
Walterboro, SC 29488
Phone: (843) 525-7603 , x-108
Fax: (843) 549-6845
Nights / Weekends: 1-800-614-4698

DHEC Bureau of Disease Control

Division of Acute Disease Epidemiology

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