
Swine Influenza (H1N1): Updated Recommendations for Testing and Treatment

To: Vermont Healthcare Providers, Hospital Emergency Departments, and Clinical Laboratories

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- Please Distribute Widely -

****** Update # 3 contains new recommendations and should replace the previously released algorithm on testing and treatment******

Swine Influenza A (H1N1): Update

- As of 5/1/09, the CDC is reporting 141 confirmed human cases of swine influenza A (H1N1) in the United States, with one death reported. Cases are from 19 different states, including New York and Massachusetts. WHO reports confirmed cases in 11 countries.
- No confirmed or probable cases have been identified in Vermont. Surveillance is ongoing. Influenza testing is in progress for individuals meeting the case definition of illness. The Vermont Department of Health Laboratory has ruled out swine flu in 49 patients. Some cases of seasonal influenza are still being confirmed in Vermont.
- The World Health Organization has raised the pandemic alert level to phase 5.

Priorities for Testing and Treatment:

- The attached matrix provides guidance for prioritizing testing and treatment with antivirals. A table of antiviral medications is also included.
- If swine flu is suspected and testing indicated, clinicians should follow appropriate precautions (N95 respirator is recommended) to obtain a nasopharyngeal swab for influenza testing.
- Place the specimen in viral transport media (preferred) or sterile diluent, refrigerate, and call the Vermont Department Health at 802-863-7240, or toll-free at 800-640-4374. Testing will be performed at the Vermont Department of Health Laboratory.
- Report patients who are being tested to the Vermont Department of Health at 802-863-7240, or toll-free at 800-640-4374. An epidemiologist is on-call to accept reports on weekends.

May 1, 2009

Swine (H1N1) Influenza Matrix for Testing and Treatment

The criteria we are currently using to judge if patients should be tested for H1N1 swine influenza include exposure risk, severity of symptoms and risk factors for complications of influenza. Some persons, as defined by the CDC (see below), are at more risk (R) than others for complications of influenza. Within this group of at risk individuals are those at even higher risk (HR) for complications of influenza, see below. **These risk and high risk individuals need careful assessment.** These same issues come into play concerning use of antiviral medications. All patients being considered for testing and treatment should have an influenza like illness (ILI).

ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a KNOWN cause other than influenza.

A note of caution. Seasonal influenza (Human H1 and H3) is still circulating in Vermont. Seasonal human influenza A H1 is resistant to Oseltamivir, but sensitive to Zanamivir, Rimantadine and Amantadine. Human influenza A H3 remains sensitive to Oseltamivir and Zanamivir

Below is a grid to assist providers in deciding who should be tested and who should receive empirical anti-viral medications for the H1N1 swine flu. All persons being considered for H1N1 swine flu treatment need to be tested for influenza A. If the influenza A test is found to be negative, the empirical therapy may be stopped.

Exposure to H1N1 swine flu	Severity of Illness		
	Severe ¹	Moderate ²	Mild ³
Extensive ⁴	test and treat	test and treat	R or HR: test and treat Not R or HR: consider test and treat
Limited ⁵	test and treat	R or HR: test and treat Not R or HR: consider test and treat	HR test and treat Not R or HR: No test or treat
None ⁶	test and treat	R or HR: test and treat Not R or HR: consider test and treat	HR test and treat Not R or HR: No test or treat

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¹ Severe: cardiopulmonary distress or instability, shortness of breath or requires hospitalization

² Moderate: cough, fever, myalgias, sore throat, but not short of breath, does not require hospitalization

³ Mild: sore throat, low grade fever, mild cough, does not look clinically ill.

⁴ Extensive: Travel to area with confirmed cases or close (6 feet) contact to someone ill with confirmed H1N1 influenza. Travel include to Mexico, other countries with confirmed H1N1 or US community with confirmed H1N1

⁵ Limited: transient stay in areas with few H1N1 influenza cases but no close contacts with ill persons

⁶ None: no travel to risk areas and no contact with persons symptomatic with ILI

R = Risks. Test and treat if the patient has the co-morbid medical condition below, including those with high risk (HR) conditions.

- adults and children who have chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, hematologic, or metabolic disorders (including diabetes mellitus);
- adults and children who have immunosuppression (including immunosuppression caused by medications or by HIV)
- infants
- adults 65 years-old

HR = High Risk. Test and treat if a person has these co-morbid conditions

- pregnant women
- patients with advanced immune suppression
 - organ transplantation
 - HIV with CD4 count < 200 cells
 - undergoing chemotherapy for cancer
 - long term corticosteroids
 - tumor necrosis factor (TNF) inhibition therapy
- advanced, oxygen dependent chronic obstructive pulmonary disease
- advanced congestive heart failure (New York Heart Association classification III or IV)

The Vermont Department of Health acknowledges the leadership of Dr. Christopher Grace, Infectious Disease Specialist, Fletcher Allen Health Care, in creating this matrix.

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Table 2. Oseltamivir dosing recommendations for adults and children*

Age group	Recommended Treatment dose for 5 days
Adults	75 mg twice per day
Children 15 kg or less	30 mg twice per day
Children 15-23 kg	45 mg twice per day
Children 24-40 kg	60 mg twice per day
Children >40 kg	75 mg twice per day
Children <3 months	12 mg twice daily
Children 3-5 months	20 mg twice daily
Children 6-11 months	25 mg twice daily

Table 3. Zanamivir dosing recommendations for adults and children

Age group	Recommended Treatment dose for 5 days
Adults	Two 5 mg inhalations (10mg total) twice per day
Children	Two 5 mg inhalations (10 mg) twice per day (age 7 years or older)

* **Source:** <http://www.cdc.gov/h1n1flu/recommendations.htm>. This link also connects to CDC information regarding antiviral chemoprophylaxis.

Adverse events from antiviral medication can be reported to the FDA by going to www.fda.gov/medwatch and clicking on submit report.