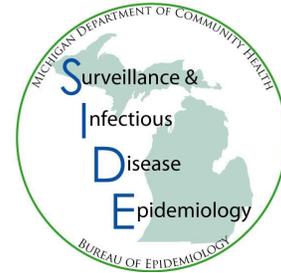




## FAQ for Clinicians Regarding 2009 Influenza A (H1N1)

Updated April 8, 2010



### Lab Testing and Case Reporting (Updated!)

#### Who should be tested for influenza?

The Michigan Department of Community Health Bureau of Laboratories (MDCH BOL) will not be conducting influenza testing for every suspect 2009 H1N1 influenza case within Michigan. **However, the clinical criteria set in place for BOL influenza testing in September 2009 have now been removed, and specimen submission from any patient type, including outpatients, hospitalizations and especially deaths, is encouraged.**

During times of low influenza prevalence in your community, specimens that are rapid test positive for influenza should be considered for confirmatory BOL testing, due to the high possibility of false positive results. Please call the MDCH Division of Communicable Disease at (517) 335-8165 with any questions regarding laboratory testing of influenza patients.

If submitting a specimen to MDCH BOL for respiratory virus testing, you will need to fill out a MDCH Test Request Form found at <http://www.michigan.gov/mdchlab> at the "Test Request Forms" link. The form for respiratory or influenza virus testing is the Microbiology/Virology DCH-0583 form. Please include the reason for testing on the test request form.

#### Do I need to report cases of influenza?

- Clinicians are required to report weekly counts of all influenza cases to their local health department.

- Influenza-associated pediatric deaths, suspect novel or avian influenza cases, facility outbreaks, and influenza cases with severe presentations (encephalitis, pulmonary hemorrhage, pregnant or postpartum women with severe complications) must be reported to your local health department.
- MDCH encourages clinicians to continue voluntarily reporting laboratory-confirmed influenza-associated hospitalizations and adult deaths, including those due to seasonal and 2009 H1N1 influenza strains, to your local health department.
- Local health department contacts are available online at <http://www.malph.org/page.cfm/18/>. Updated guidance on influenza reporting for clinicians is available online at [http://www.michigan.gov/documents/mdch/April\\_2010\\_Influenza\\_Guidance\\_healthcare\\_316788\\_7.pdf](http://www.michigan.gov/documents/mdch/April_2010_Influenza_Guidance_healthcare_316788_7.pdf).

### **What are the recommendations for sample collection and submission for rRT-PCR?**

MDCH BOL recommends using any of the following for specimen collection:

- Nasopharyngeal (NP) swab in viral transfer media (VTM) or phosphate buffer solution (PBS)
- Nasal swab in VTM or PBS
- Dual NP/oropharyngeal swabs in VTM or PBS
- Nasal aspirates
- Viral isolates

MDCH BOL is continuing to run RT-PCR testing for both seasonal and 2009 A (H1N1) influenza strains as the first line of respiratory virus testing, with all PCR-negative specimens then going into viral culture.

### **Where else can I send specimens for 2009 H1N1 influenza testing?**

Several laboratories within Michigan are performing 2009 influenza A (H1N1) PCR diagnostic testing. Please refer to the MDCH BOL website at <http://www.michigan.gov/mdchlab> and click on the “Laboratory Novel H1N1 (Swine) Influenza Page” link for a list of validated laboratories.

### **Does a negative rapid influenza test rule out influenza?**

A negative result does not exclude influenza virus infection. A diagnosis of influenza should be considered based on a patient’s clinical presentation, and empiric antiviral treatment should be considered, if indicated. The sensitivity of rapid test assays has been shown to range between [10-70%\*] for the detection 2009 H1N1 influenza virus and between [20-100%\*] for seasonal influenza viruses. Please see the CDC web page [http://www.cdc.gov/h1n1flu/guidance/rapid\\_testing.htm](http://www.cdc.gov/h1n1flu/guidance/rapid_testing.htm) for more information.

### **Is a positive rapid test always reliable?**

The positive predictive value of rapid influenza tests varies with the brand of the test, influenza strains, and the prevalence of influenza in the community. In times of high prevalence, a positive result from a rapid test is more likely to be a true positive; conversely, in times of low prevalence, false positive results are more likely. In times of low influenza prevalence, please consider confirmatory testing (PCR, culture, DFA, IFA) of rapid test-positive specimens. Please see the CDC web page [http://www.cdc.gov/h1n1flu/guidance/rapid\\_testing.htm](http://www.cdc.gov/h1n1flu/guidance/rapid_testing.htm) for more information.

### **Infection Control**

**Please Note:** This guidance apply specifically to the special circumstances of the current 2009 H1N1 pandemic. This document will be updated as new information becomes available. We urge you to refer to the Center for Disease Control and Prevention’s (CDC) website at [www.cdc.gov/h1n1flu](http://www.cdc.gov/h1n1flu), or the MDCH website at [www.michigan.gov/flu](http://www.michigan.gov/flu) for updates.

## **What type of infection control measures are recommended for hospitalized patients?**

The interim guidance on infection control measures to prevent transmission of 2009 H1N1 influenza in healthcare facilities includes a comprehensive infection control strategy, which is comprised of a hierarchy of engineering and administrative controls, and the appropriate use of personal protective equipment.

- *Vaccinate the workforce with seasonal and 2009 H1N1 vaccines*
- *Keep sick workers at home*
- *Enforce respiratory hygiene and cough etiquette*
- *Enhance hand hygiene compliance*
- *Establish facility access control and triage procedures*
- *Control patient placement and transport*
- *Apply isolation precautions*

Hospitalized patients should be isolated in individual rooms and the door closed whenever possible. If a single room is not available other options such as cohorting may be considered. Before placement and during transport the patient should be asked to wear a surgical mask (if tolerated). For high-risk procedures such as open suctioning, bronchoscopy or intubation/extubation, the use of a negative pressure room may be considered. Guidelines for obstetric <http://cdc.gov/h1n1flu/guidance/obstetric.htm> and outpatient hemodialysis settings [http://cdc.gov/h1n1flu/guidance/hemodialysis\\_centers.htm](http://cdc.gov/h1n1flu/guidance/hemodialysis_centers.htm) are also available on the CDC's web site. Any other facility specific procedures should be followed.

## **How long to hospitalized patients need to be isolated?**

Isolation precautions for patients who have influenza symptoms should be continued for 7 days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms, whichever is longer, while a patient is in a

healthcare facility. A patient need not be kept hospitalized for the purposes of isolation and may be discharged based on clinical judgment. Currently there is no recommendation to end isolation earlier for patients on oseltamivir or zanamavir. They should be encouraged to continue good hand hygiene, cough etiquette and to follow any guidelines regarding return to work or school.

### **What type of personal protective equipment (PPE) is recommended for health care personnel (HCP)?**

The CDC recommends that health-care personnel who are in close contact with patients with suspected or confirmed 2009 H1N1 influenza should use Standard Precautions [http://www.cdc.gov/ncidod/dhqp/gl\\_isolation\\_standard.html](http://www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html) and respiratory protection including gloves, and fit-tested N-95 masks. Close contact is defined as working within 6 feet of a patient or entering a small closed airspace with a patient with suspected or confirmed 2009 H1N1 influenza. Gowns and eye protection should be used for any activity that might generate splashes of respiratory secretions or other infectious materials. Please see the CDC's web page at [http://www.cdc.gov/h1n1flu/guidelines\\_infection\\_control.htm](http://www.cdc.gov/h1n1flu/guidelines_infection_control.htm) for more information.

### **Which health care workers need to use PPE?**

For the purposes of this guidance, healthcare personnel are defined as all persons whose occupational activities involve contact with patients or contaminated material in a healthcare, home healthcare, or clinical laboratory setting. Healthcare personnel are engaged in a range of occupations, many of which include patient contact even though they do not involve direct provision of patient care, such as dietary and housekeeping services. This guidance applies to healthcare personnel working in the following settings: acute care hospitals, nursing homes, skilled nursing facilities, physician's offices, urgent care centers, outpatient clinics, and home healthcare agencies. It also includes those working in clinical settings within non-healthcare institutions, such as school nurses or personnel staffing clinics in correctional facilities. The term "healthcare

personnel” includes not only employees of the organization or agency, but also contractors, clinicians, volunteers, students, trainees, clergy, and others who may come in contact with patients. Please see the CDC web page at [http://cdc.gov/h1n1flu/guidelines\\_infection\\_control.htm](http://cdc.gov/h1n1flu/guidelines_infection_control.htm) for more information

### **How long should health care workers be asked to stay home if they have flu-like symptoms?**

Most health care workers may return to work 24 hours after fever has subsided without antipyretic medications. If returning to work in areas where severely immunocompromised patients are provided care, consider temporary reassignment or exclusion from work for 7 days from symptom onset or until the resolution of symptoms, whichever is longer. Healthcare personnel recovering from a respiratory illness may return to work with immunocompromised patients sooner if absence of 2009 H1N1 viral RNA in respiratory secretions is documented by rRT-PCR. Currently there is no recommendation to end restrictions earlier for healthcare personnel on oseltamivir or zanamavir.

### **What is the recommended time that someone with influenza-like illness or 2009 H1N1 influenza stays home from work or school?**

The CDC recommends that those who are ill with symptoms of influenza-like illness (ILI) stay home from work or school until 24 hours after the fever has subsided without antipyretic medications. They should be encouraged to continue good hand hygiene, cough etiquette and to follow any guidelines regarding return to work or school.

### **Must family members of those who are diagnosed with ILI or 2009 H1N1 influenza stay home from work or school?**

Family or household member of patients diagnosed with ILI or 2009 H1N1 influenza may continue to attend school or work. They should stay vigilant for flu symptoms.

## **Antivirals**

### **Who should be treated with antiviral medications during the 2009–2010 influenza seasons and which antiviral(s) should be used?**

According to the CDC, the majority of influenza viruses currently circulating in the U.S. are the 2009 H1N1 influenza strain. This virus is resistant to both amantadine and rimantadine, but is sensitive to both neuraminidases, oseltamivir and zanamivir. The CDC recommends that high-risk individuals or those hospitalized with severe symptoms of ILI be treated with either oseltamivir or zanamivir. Persons who are not at higher risk for complications or who do not have severe influenza requiring hospitalization generally do not require antiviral medications for treatment. **As the type of strains and resistance of the virus may change, we urge you to refer periodically to both the CDC website at <http://www.cdc.gov/h1n1flu/recommendations.htm> for updates.**

### **Should I wait for lab test results before initiating treatment for influenza?**

When treatment of influenza is indicated in a patient with suspected influenza, health care providers should initiate empiric antiviral treatment as soon as possible. Waiting for laboratory confirmation of influenza to begin treatment with antiviral drugs is not necessary. Patients with a negative rapid influenza diagnostic test should be considered for treatment if clinically indicated because a negative rapid influenza test result does not rule out influenza virus infection. The sensitivity of rapid influenza diagnostic tests for 2009 H1N1 virus can range from 10% to 70%, indicating that false negative results occur frequently.

### **Who should get prophylaxis?**

High-risk individuals who have had close contact with a suspected or confirmed case of 2009 H1N1 influenza should be considered for prophylaxis with oseltamivir or zanamivir. Health care personnel with a recognized unprotected exposure to Health care personnel may be considered for post-exposure prophylaxis. Health care personnel, who have occupational exposures, can be counseled about the early signs and symptoms of influenza, and advised to

immediately contact their health care provider for evaluation and possible early treatment if clinical signs or symptoms develop. For more information please check the CDC website at <http://cdc.gov/h1n1flu/recommendations.htm>.

### What are the recommended doses for treatment and prophylaxis?

Please see the following table for recommended doses for treatment and prophylaxis for adults and children. For renal dosing, refer to <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr57e717a1.htm>.

Antiviral medication dosing recommendations for 2009 H1N1 influenza treatment or chemoprophylaxis

Agent, group		Treatment (5 days)	Chemoprophylaxis (10 days)
<b>Oseltamivir</b>			
<b>Adults</b>		75-mg capsule twice per day	75-mg capsule once per day
<b>Children ≥ 12 months</b>	15 kg or less	60 mg per day divided into 2 doses	30 mg once per day
	16–23 kg	90 mg per day divided into 2 doses	45 mg once per day
	24–40 kg	120 mg per day divided into 2 doses	60 mg once per day
	>40 kg	150 mg per day divided into 2 doses	75 mg once per day
<b>Zanamivir</b>			
<b>Adults</b>		Two 5-mg inhalations (10 mg total) twice per day	Two 5-mg inhalations (10 mg total) once per day
<b>Children</b>		Two 5-mg inhalations (10 mg total) twice per day (age, 7 years or older)	Two 5-mg inhalations (10 mg total) once per day (age, 5 years or older)

Note: Table was extracted from product information for Tamiflu® and Relenza®.

## Should children <1 year of age be treated or given prophylaxis with antiviral medications?

Yes, the CDC recommendations for antiviral treatment or chemoprophylaxis dosing with oseltamivir, for infants <12 months of age are displayed below.

Dosing recommendations for antiviral treatment or chemoprophylaxis for children <1 year of age

Age of child	Recommended treatment dose for 5 days	Recommended prophylaxis dose for 10 days
<3 months	12 mg twice daily	Not recommended unless situation judged critical, due to limited data on use in this age group
3–5 months	20 mg twice daily	20 mg once daily
6–11 months	25 mg twice daily	25 mg once daily

Note: Table was extracted from product information for Tamiflu® and Relenza®.

When dispensing oral suspension Tamiflu for children younger than 1 year of age, the included oral dosing dispenser in the Tamiflu package should always be removed. Pharmacists and health care providers should provide an oral syringe that is capable of accurately measuring the prescribed milliliter (mL) dose, and counsel the caregiver how to administer the prescribed dose. Some experts recommend weight-based dosing for infants <12 months of age. Please see <http://cdc.gov/h1n1flu/recommendations.htm> for more information. For pediatric dosing, oseltamivir can be compounded by a pharmacist. Because of the lack of safety and dosing data on children <12 months of age, the Food and Drug Administration (FDA) has issued an Emergency Use Authorization (<http://www.fda.gov/downloads/Drugs/DrugSafety/InformationbyDrugClass/UCM153547.pdf>). Clinicians are advised to monitor patients for adverse events.

## What are my options for prescribing if the liquid formulation is unavailable?

There are two options for most children and adult who cannot swallow capsules. Most retail pharmacies can compound oseltamivir into a 15mg/mL suspension.

Please go to the CDC website at

<http://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm188629.htm>

for more information. Parents or guardians may also open and mix the contents of 30mg or 45mg capsules with thick sweetened liquids. Please go to the CDC website at [http://www.cdc.gov/H1N1flu/antivirals/mixing\\_tamiflu\\_qa.htm](http://www.cdc.gov/H1N1flu/antivirals/mixing_tamiflu_qa.htm) for more information.

### **Should pregnant women be treated or given prophylaxis with antiviral medications?**

Oseltamivir and zanamivir are "pregnancy category C" medications, indicating that no clinical studies have been conducted to assess the safety of these medications for pregnant women. Because pregnant women are considered to be at high-risk for complications, treatment should be started as early as possible and should not be postponed waiting for laboratory confirmation. Due to the changing immune, cardiac and respiratory physiology women **up to 2 weeks post-partum** period are also considered to be at increased risk. Post-exposure prophylaxis for pregnant women may be considered. For more information, please go to [http://www.cdc.gov/h1n1flu/pregnancy/antiviral\\_messages.htm](http://www.cdc.gov/h1n1flu/pregnancy/antiviral_messages.htm).

### **Should women who are breast-feeding be treated or given prophylaxis with antiviral medications?**

Breastfeeding should be protected and supported at all times because of the protection from respiratory infection that breast milk provides to the infant. The mother with influenza-like-illness should be encouraged and assisted to express her milk. During this time, the infant should be fed the mother's expressed milk by another person who is well. Treatment or chemoprophylaxis with antiviral medications is not a contraindication to breastfeeding. For other information related to infant feeding, please see

<http://www.cdc.gov/h1n1flu/breastfeeding.htm>

## **Are there any Intravenous antiviral medication alternatives for critically ill patients?**

Yes the CDC and the FDA have made peramivir available by Emergency Use Authorization (EUA). Please go to the CDC's website at

[http://www.cdc.gov/h1n1flu/EUA/pdf/peramivir\\_qa.pdf](http://www.cdc.gov/h1n1flu/EUA/pdf/peramivir_qa.pdf) for more information.

Intravenous zanamivir is available for compassionate use from its manufacturer via an emergency request to the FDA.

## **Which patients should be considered for intravenous antiviral therapy?**

Peramivir IV is authorized only for the following patients who are admitted to a hospital and under the care or consultation of a licensed clinician (skilled in the diagnosis and management of patients with potentially life-threatening illness and the ability to recognize and manage medication-related adverse events):

Adult patients, for whom therapy with an IV agent is clinically appropriate, based upon one or more of the following reasons:

1. Patient not responding to either oral or inhaled antiviral therapy, or
2. Drug delivery by a route other than IV (e.g. enteral oseltamivir or inhaled zanamivir) is not expected to be dependable or is not feasible, or
3. The clinician judges IV therapy is appropriate due to other circumstances.

Pediatric patients for whom an IV agent is clinically appropriate because:

1. Patient not responding to either oral or inhaled antiviral therapy, or
2. Drug delivery by a route other than IV (e.g. enteral oseltamivir or inhaled zanamivir) is not expected to be dependable or is not feasible.

## **Vaccines**

**Please Note:** These guidelines apply only to the 2009 H1N1 influenza and 2009-2010 seasonal influenza vaccines. This document will be updated as information about vaccinations during the 2010-2011 influenza season becomes available.

### **What type of vaccine for 2009 H1N1 influenza is available?**

Influenza A (H1N1) 2009 monovalent vaccine is being produced by four different manufacturers, and will be available as an inactivated injection (multi-dose or single dose) or as a live attenuated nasal spray.

### **Is the influenza A (H1N1) 2009 monovalent vaccine safe?**

Yes, the 2009 H1N1 influenza is a strain change from the seasonal influenza. The influenza A (H1N1) 2009 monovalent vaccine is produced using the same well-established process used in manufacturing seasonal influenza vaccines. The influenza A (H1N1) 2009 monovalent vaccine has undergone rigorous clinical trials at several sites across the United States and has been FDA-approved. The safety of this vaccine, and all other vaccines, is under constant monitoring. Any adverse effects associated with the vaccine should be reported immediately through the VAERS monitoring system at [www.cdc.gov/vaccinesafety/vaers/](http://www.cdc.gov/vaccinesafety/vaers/).

### **Do any of the influenza A (H1N1) 2009 monovalent vaccines contain adjuvants?**

No, as with the seasonal influenza none of the influenza A (H1N1) 2009 monovalent vaccines manufactured for the United States contain adjuvants. Please go to the CDC's website for more information at <http://www.cdc.gov/vaccinesafety/updates/adjuvants.htm>.

### **Do any of the influenza A (H1N1) 2009 monovalent vaccines contain thimerosal or other preservatives?**

Yes, as with seasonal influenza vaccine multi-dose vials of the influenza A (H1N1) 2009 monovalent vaccine will contain thimerosal, a preservative. Single-dose preparations of the inactivated vaccine as well as the live attenuated vaccine do not contain thimerosal or any other preservative. For more information about specific vaccine preparations please go to the CDC website at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5839a3.htm>.

### **If I am not a provider of the influenza A (H1N1) 2009 monovalent vaccine, where can I direct my patients to get the vaccine?**

You can go to the Michigan Department of Community Health's 2009 H1N1 web site at [www.michigan.gov/h1n1flu](http://www.michigan.gov/h1n1flu) and click on the link, "[Click here for information on where to get flu vaccines](#) ." In addition, you can contact your local health department <http://www.malph.org/page.cfm/18/> or check the Flu Shot locator at [www.flu.gov](http://www.flu.gov).

### **Who should get the influenza A (H1N1) 2009 monovalent vaccine?**

The Advisory Council on Immunization Practices (ACIP) recommends vaccinating as many as possible, with an initial focus on groups at higher risk for complications from 2009 H1N1 influenza. Because there is sufficient supply, influenza A (H1N1) vaccination is now open to the general population.

### **How many doses of influenza A (H1N1) 2009 vaccine will someone need?**

Anyone 10 years of age and older will only need 1 dose. Children 9 years of age and under will need 2 doses of vaccine even if they have had seasonal flu vaccine in the past. This is different from the seasonal influenza guidelines which recommend that children 8 years of age and under get 2 doses of seasonal flu vaccine if this is the first year they are getting a flu vaccine. This means that some children will need for 4 doses of flu vaccine (two seasonal doses and two 2009 H1N1 influenza doses). Two doses of either the seasonal influenza or the influenza A (H1N1) 2009 monovalent vaccine must be separated by at least 28 days. For more information please see the CDC website at

### **Who is eligible to get the nasal spray forms of the influenza A (H1N1) 2009 and/or seasonal flu vaccines?**

Healthy persons between the ages of 2 and 49 years of age are eligible to get the nasal influenza vaccine. Those that have underlying medical problems, pregnant women or children who have a history of asthma or wheezing should

not get the nasal influenza vaccines. Household & close contacts of persons who are severely immunosuppressed requiring a protective environment should be vaccinated with injectable flu vaccine or if receiving nasal 2009 H1N1 vaccine, they should refrain from contact with these persons for 7 days.

### **Which health care personnel should get the nasal spray form of the influenza A (H1N1) 2009 and/or seasonal flu vaccine?**

Only health care workers who are performing direct patient of individuals who are severely immunosuppressed that they need a protective environment (i.e. bone marrow transplant) should **not** get the live attenuated influenza vaccine (LAIV) or should be excluded from caring for such patients until 7 days after they get LAIV. All other health care personnel under the age of 49 years, who are otherwise healthy and not pregnant, are eligible to get LAIV. Health Care Personnel who are pregnant or have chronic medical conditions, other than severe immunosuppression, can administer nasal 2009 H1N1 vaccine or seasonal flu vaccine.

### **Can 2009 H1N1 vaccine be administered at the same visit as other vaccines?**

Inactivated 2009 H1N1 vaccine can be administered at the same visit as any other vaccine, including pneumococcal polysaccharide vaccine. Live 2009 H1N1 vaccine can be administered at the same visit as any other live or inactivated vaccine EXCEPT seasonal live attenuated influenza vaccine. For more info go to the CDC website at [http://www.cdc.gov/h1n1flu/vaccination/vaccine\\_admin.html](http://www.cdc.gov/h1n1flu/vaccination/vaccine_admin.html).

### **Should vaccines for seasonal influenza and 2009 H1N1 influenza be given at the same visit?**

Both seasonal and 2009 H1N1 vaccines are available as inactivated and live attenuated (LAIV) formulations. The simultaneous and sequential administration of seasonal and 2009 H1N1 inactivated vaccines is currently being studied. However, existing recommendations are that two inactivated vaccines can be

administered at any time before, after, or at the same visit as each other (General Recommendations on Immunization, MMWR 2006;55[RR-15]). Existing recommendations also state that an inactivated and live vaccine may be administered at any time before, after or at the same visit as each other. Consequently, providers can administer seasonal and 2009 H1N1 inactivated vaccines, seasonal inactivated vaccine and 2009 H1N1 LAIV, or seasonal LAIV and inactivated 2009 H1N1 at the same visit, or at any time before or after each other. Live attenuated seasonal and live 2009 H1N1 vaccines should NOT be administered at the same visit until further studies are done. If a person is eligible and prefers the LAIV formulation of seasonal and 2009 H1N1 vaccine, these vaccines should be separated by a minimum of four weeks.

### **Should patients on antivirals get a vaccine for seasonal flu or 2009 H1N1 influenza?**

Administration of trivalent inactivated seasonal influenza vaccine (TIV) or influenza A (H1N1) 2009 monovalent vaccine and influenza antivirals during the same medical visit is acceptable. The effect on safety and effectiveness of LAIV co-administration with influenza antiviral medications has not been studied. However, because influenza antivirals reduce replication of influenza viruses, LAIV should not be administered until 48 hours after cessation of influenza antiviral therapy, and influenza antiviral medications should not be administered for 2 weeks after receipt of LAIV. Persons receiving antivirals within the period 2 days before to 14 days after vaccination with LAIV should be revaccinated at a later date. (This language was taken from <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr57e717a1.htm>.)

### **Should patients who have received either the seasonal influenza vaccine or influenza A (H1N1) 2009 monovalent vaccine be treated or given prophylaxis with antiviral medications?**

Although these vaccines are expected to be highly effective, no vaccine is 100% efficacious. Therefore, a history of receipt of 2009 H1N1 or seasonal influenza

vaccine does not rule out influenza infection. Early empiric treatment should be initiated for vaccinated persons with suspected influenza infection when indicated (e.g. persons requiring hospitalization, with severe infection, or at higher risk for influenza-related complications). Vaccination with 2009 H1N1 influenza vaccine is not expected to provide protection against infection with seasonal influenza A or B viruses. Similarly, vaccination with seasonal influenza vaccine is not expected to prevent infection with 2009 H1N1 influenza virus.

**Do people who were diagnosed with flu still need to get vaccinated?**

Unless an individual was diagnosed as a PCR confirmed case of 2009 H1N1 influenza by MDCH BOL, then that individual should be immunized with influenza A (H1N1) 2009 monovalent vaccine. Please see the CDC web site at [http://www.cdc.gov/h1n1flu/vaccination/clinicians\\_qa.htm](http://www.cdc.gov/h1n1flu/vaccination/clinicians_qa.htm) for more information.

**Can a person who has received LAIV test positive on a rapid influenza diagnostic test?**

The live attenuated influenza vaccine viruses in LAIV (seasonal vaccine and 2009 H1N1 monovalent vaccine) can cause a positive result on a rapid influenza diagnostic test. The tests are designed to detect influenza viruses and cannot differentiate between live attenuated and wild-type influenza viruses. A positive test in a person who recently (in the previous 7 days) received LAIV and who also has an influenza-like illness could be caused by either LAIV or wild-type influenza virus.