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Questions and Answers about CDC's Interim Guidance on Infection Control Measures for 2009 H1N1 Influenza in Healthcare Settings, Including Protection of Healthcare Personnel

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Q. How is this recommendation different from the previous 2009 H1N1 guidance for healthcare personnel?

The updated guidance applies uniquely to the special circumstances of the current 2009 H1N1 pandemic during the fall and winter of 2009-2010. It provides general guidance for all healthcare facilities. The updated guidance expands on earlier guidance by emphasizing that successfully preventing transmission requires a comprehensive approach, beginning with pandemic planning that includes developing written plans that are flexible and adaptable should changes occur in the severity of illness or other aspects of 2009 H1N1 and seasonal influenza.

Revisions from earlier guidance include: criteria for identification of suspected influenza patients; recommended time away from work for healthcare personnel; changes to isolation precautions based on tasks and anticipated exposures; expansion of information on interventions using a hierarchy of controls approach; changes in recommendations on the routine use of gowns and eye protection; and changes to guidance on use of respiratory protection.

The basic recommendation regarding respiratory protection – that respirators (at least as protective as a fit tested disposable N95 filtering facepiece respirator) should be used by healthcare personnel who enter the rooms of patients in isolation with confirmed, suspected, or probable 2009 H1N1 influenza – remains unchanged. CDC recognizes current and anticipated shortages; therefore, the guidance also provides for healthcare facilities to develop a risk assessment by which respirators in critically short supply can be issued on a priority basis.

Q. Who should use this guidance?

This guidance provides general recommendations for healthcare personnel in all healthcare facilities. 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. This includes employees of healthcare facilities, but also contractors and other non-employees such as volunteers, students, trainees, clergy, and others who may come in contact with patients. These recommendations apply to both inpatient and outpatient healthcare facilities, home healthcare

agencies, and clinical settings within non-healthcare institutions such as school nurses and personnel staffing clinics in correctional facilities.

Q. How can healthcare facilities eliminate sources of infection and transmission within their facilities?

Healthcare facilities will want to use a multi-level approach, called the hierarchy of controls, that includes both administrative controls and engineering controls to eliminate sources of infection and prevent transmission within their facility. Examples of these strategies are detailed in [Table 1 \(http://www.cdc.gov/h1n1flu/guidelines_infection_control_qa.htm\)](http://www.cdc.gov/h1n1flu/guidelines_infection_control_qa.htm) of the guidelines.

To ensure a comprehensive infection control strategy, healthcare facilities will want to:

- Vaccinate their 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 measures and triage procedures.
- Manage visitor access and movement within the facility.
- Control patient placement and transport.
- Apply isolation precautions.

Q. How can healthcare facilities increase compliance with 2009 H1N1 and seasonal flu vaccination?

There are several strategies that healthcare facilities may wish to employ to increase 2009 H1N1 and seasonal flu vaccination among their staff. Vaccination should be offered to healthcare personnel free of charge at times and locations that are convenient. Vaccination campaigns with incentives have been associated with improved vaccine acceptance among healthcare personnel and should be considered. Healthcare facilities should require personnel who refuse vaccination to complete a declination form.

Q. How long should ill healthcare personnel stay home?

Healthcare personnel who develop a fever and respiratory symptoms should promptly notify their supervisor and be instructed not to work. Ill healthcare personnel should stay home from work for at least 24 hours after they no longer have a fever, without the use of fever reducing medicines. If healthcare personnel are returning to work in areas where severely immunocompromised patients are provided care, they should be considered for temporary reassignment or exclusion from work for 7 days from symptom onset or 24 hours after the resolution of symptoms, whichever is longer. Upon return, healthcare personnel should be reminded of the importance of frequent hand hygiene and respiratory hygiene and cough etiquette.

Q. If a family member of healthcare personnel is diagnosed with 2009 H1N1


influenza, can the healthcare personnel go to work?

Yes. Work restrictions, as described in the guidance document, apply only to the symptoms and health of the employee. If the healthcare worker is healthy, they can still go to work but should monitor themselves for symptoms so that any illness is recognized promptly.

Q. How can healthcare facilities limit movement of visitors?

Visitors who have been in contact with the patient before and during hospitalization are a possible source of influenza for other patients, visitors, and staff. Healthcare facilities may wish to limit visitors to persons who are necessary for the patient's emotional well-being and care. Visitors should be screened for symptoms of acute respiratory illness before entering the hospital. Visitors should be instructed to limit their movement within the facility. Before entering the patient's room, healthcare personnel should instruct visitors on hand hygiene, limiting surfaces touched, and use of personal protective equipment (PPE) according to current facility policy while in the patient's room.

Q. What should healthcare facilities do if they do not have enough private rooms?

When a single patient room is not available, consultation with infection control personnel is recommended to assess the risks associated with other patient placement options (e.g., cohorting, keeping the patient with an existing roommate). (See <http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/Isolation2007.pdf>  (<http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/Isolation2007.pdf>) for additional information on cohorting.)

Q. What personal protective equipment should be worn by healthcare personnel?

Standard precautions should be followed for all patient care. For any activity that might generate splashes of respiratory secretions, gowns along with eye protection should be worn. Healthcare workers who are in close contact with patients suspected or confirmed to have 2009 H1N1 influenza should wear a fit-tested, disposable N95 respirator.

Q. What constitutes high-risk (aerosol-generating) activities?

Some procedures may be higher-risk for potential exposure, such as aerosol generating procedures, that could increase inhalation of respiratory droplets. These procedures include: bronchoscopy, sputum intubation, endotracheal, intubation, open suctioning of airways, cardiopulmonary resuscitation, and autopsies.

Q. How can healthcare personnel reduce their exposure risk when performing aerosol-generating procedures?

To reduce exposure risk, healthcare personnel should only perform these procedures on patients with suspected or confirmed influenza when medically necessary and limit the number of healthcare personnel in the room. These procedures may also be conducted in airborne infection isolation rooms, when available. Healthcare personnel should adhere to standard precautions and wear respiratory protection (N95 or higher) when conducting these activities.

Q. I am a healthcare worker who is at higher risk for complications for influenza. How can I protect myself?

Healthcare personnel who are at higher risk for complications from influenza will want to get vaccinated and seek early treatment with antivirals should they become ill.

Q. Why are the recommendations for respiratory protection of healthcare workers different for 2009 H1N1 influenza and seasonal influenza?

The respiratory protection recommendations for healthcare personnel for protection against 2009 H1N1 differ from recommendations for seasonal influenza as there is little pre-existing immunity to the 2009 H1N1 strain in the population, including healthcare personnel.

Respirators:

Q. Will there be enough N95 respirators to meet the anticipated demand?

Some healthcare facilities are experiencing shortages of respiratory protection equipment, and further shortages are anticipated. Therefore, appropriate selection and judicious use of respiratory protection is critical. A key strategy is to use recommended administrative measures to reduce the number of workers who come into contact with patients who have influenza-like illness. For more information please visit http://www.cdc.gov/h1n1flu/guidelines_infection_control_qa.htm ([/h1n1flu/guidelines_infection_control_qa.htm](http://www.cdc.gov/h1n1flu/guidelines_infection_control_qa.htm))

Q. How do I identify an N-95 and make sure it's a NIOSH-approved respirator?

Respirators are evaluated and certified by NIOSH. NIOSH-approved N-95 respirators are marked with "NIOSH" and "N95" on the respirator. Further information identifying approved respirators can be found at the following NIOSH websites: http://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/ (http://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/)
http://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/n95list1.html (http://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/n95list1.html)
<http://www.cdc.gov/niosh/docs/2005-100/default.html> (<http://www.cdc.gov/niosh/docs/2005-100/default.html>)

Q. How do I learn how to put on and use a respirator?

NIOSH-approved respirators include User Instructions that explain the procedure for putting on that model of respirator, as well as instructions on its use. These procedures should be augmented with hand hygiene before putting on the respirator and taking it off, due to the fomite concerns. User instructions listed with each NIOSH-approved disposable respirator can be found at: http://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/ (http://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/)

Any respirator worn for occupational purposes should be used in the context of a Respiratory Protection Program, which should always include training in how to use and put on a respirator, as well as other issues surrounding the use of respirators as required by OSHA. Further information and posters that graphically depict this information are available from the

following NIOSH website: <http://www.cdc.gov/niosh/npptl/healthcare.html>
(<http://www.cdc.gov/niosh/npptl/healthcare.html>)

Q. If I think a respirator is too hot or uncomfortable to wear, can I simply choose not to wear it?

It is important to wear a respirator when the risk of work-related infection exists, based on the CDC guidance. When wearing a respirator for long periods of time, it may be necessary to take more frequent short breaks or intersperse tasks not requiring respirator use. Proper selection and use of a respirator are components of a respiratory protection program. Consult with your employer's respiratory protection program administrator to find another filtering facepiece respirator that better suits your needs. Alternatively, different respirator types (e.g. PAPRs) may be considered or you may be assigned work tasks that do not involve hazardous exposures to 2009 H1N1.

Q. How long could an N-95 respirator be used? Should it be used for one patient only, or can it be used for multiple patients?

Currently, disposable N95 respirators for 2009 H1N1 influenza are recommended only for single use in healthcare settings. Used respirators are considered contaminated and ideally should be discarded after each patient encounter. However, in the setting of supply shortages, facilities may need to consider extending the use of each respirator. Extended use refers to wearing the respirators for multiple serial patient encounters, as long as the respirator has not been removed and re-donned between encounters. Because extended use across multiple patient encounters is of uncertain safety with respect to infection control, these alternatives should only be considered in the event of significant supply shortages/disruptions.

Q. Are there any guidelines that specifically are geared for the EMS and first responder community, as opposed to these recommendations, which seem geared toward the inpatient setting?

These infection control recommendations apply to EMS and first responders who provide patient care and transport of suspect or confirmed 2009 H1N1 influenza patients. In addition, there is specific guidance for EMS entitled *Interim Guidance for Emergency Medical Services (EMS) Systems and 9-1-1 Public Safety Answering Points (PSAPs) for Management of Patients with Confirmed or Suspected Swine-Origin Influenza A (H1N1) Infection* (http://www.cdc.gov/h1n1flu/guidance_ems.htm (http://www.cdc.gov/h1n1flu/guidance_ems.htm)).

Q. What should healthcare personnel do if they need to reposition or touch an N-95 respirator while wearing it?

Care should be taken to avoid the need to reposition or touch the N-95 respirator before completing tasks that require its use. If repositioning of the respirator is unavoidable, this should be done in a way that avoids touching unprotected portions of the face or margins of the respirator. Gloves should be removed and hand hygiene should be performed before and after touching the respirator. If removal must be performed, the respirator should be considered to

be contaminated.

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