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Colorado Department
of Public Health
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HAN Alert - Health Alert Network Broadcast

MESSAGE ID: 11052009 16:00

FROM: CO-CDPHE

SUBJECT: HAN Update – Infection Control Guidelines for Healthcare Workers for 2009 H1N1 Influenza

RECIPIENTS: ICPs, Local Public Health Agencies, CO Medical Society, CO IDSA

RECIPIENT INSTRUCTIONS: Local Public Health Agencies please forward to healthcare providers

This message can also be found on www.cohan.state.co.us

HEALTH UPDATE

Infection Control Guidelines for Healthcare Workers for 2009 H1N1 Influenza

November 5, 2009

These guidelines replace the previous version dated May 8, 2009.

PLEASE NOTE: This document provides interim guidance that might change as more information becomes available.

This guidance is based on current scientific literature, the current epidemiology of 2009 H1N1 in Colorado, and the availability of H1N1 vaccine for healthcare workers. It applies to all healthcare personnel whose activities involve contact with patients. This can include personnel providing direct patient care and those who have patient contact without providing direct care. This guidance is intended for healthcare settings including hospitals, long-term care facilities, outpatient facilities, home healthcare agencies, and other healthcare settings in schools and correctional facilities.

This guidance is written primarily for 2009 H1N1. However, co-circulation of seasonal influenza strains along with 2009 H1N1 is likely to increase in the months to come. Therefore, these guidelines should be applied to all suspected and confirmed influenza cases.

Hierarchy of controls

Healthcare facilities should use a hierarchy of control methods to decrease the risk of transmission of influenza to protect healthcare workers and other patients. Personal protective equipment is only one element that decreases the risk of influenza transmission; all methods, listed below in order of importance, should be employed. For more detailed information on this topic, see CDC's Interim Guidance on Infection Control Measures for 2009 H1N1 Influenza in Healthcare Settings, Including Protection of Healthcare Personnel at <http://www.cdc.gov/h1n1flu/guidance/ill-hcp.htm>.

- 1) Elimination of potential exposures. Examples:
 - a. Minimize healthcare visits by patients with mild influenza-like illness (ILI) without risk factors for complications.
 - b. Postpone elective visits by patients with suspected or confirmed influenza.
 - c. Limit visitors and exclude sick visitors. (See CDPHE guidance: Recommendations for Visitor Restriction to Acute Care Facilities During the 2009-2010 Influenza Season at <http://www.cdphe.state.co.us/epr/Public/H1N1/VisitorRestrictions.pdf>.)
 - d. Screen patients for ILI, have patients with ILI immediately don surgical masks/facemasks, and place patients with ILI in separate rooms (source control).
- 2) Engineering controls. Examples:
 - a. Use partitions in triage areas.
 - b. Use closed suctioning systems for intubated patients.
- 3) Administrative controls. Examples:
 - a. Promote and provide influenza (seasonal and 2009 H1N1) vaccine for healthcare workers.
 - b. Exclude ill healthcare workers from work.
 - c. Implement respiratory hygiene and cough etiquette strategies.
 - d. Manage patient flow and assign dedicated staff to minimize the number of healthcare workers and patients exposed.
- 4) Personal protective equipment.

Isolation precautions

Routine care of patients with suspected or confirmed 2009 H1N1

- **Standard precautions** (hand hygiene plus gloves, gown, face shield/eye protection as indicated by patient care activities and risk of exposure to blood/body fluids) should be used for all patients with suspected or confirmed 2009 H1N1.

PLUS

- **Droplet precautions** (surgical masks/facemasks) should be used for all routine patient care activities.
- Provide surgical masks/facemasks for patients with suspected and confirmed 2009 H1N1 to wear when outside patient rooms (source control).
- Healthcare facilities should provide respirators (fit-tested disposable N95 respirators or powered air purifying respirators [PAPR]) for any healthcare worker who requests them when resources are available to do so. (See “Resource Shortages” below.) Fit-testing for N95 respirators should be repeated annually.

Aerosol-generating procedures

Aerosol-generating procedures (e.g., bronchoscopy, intubation and extubation, deep open tracheal suctioning, autopsies) should be performed with the following isolation precautions:

- **Standard precautions** (hand hygiene plus gloves, gown, face shield/eye protection as indicated by patient care activities and risk of exposure to blood/body fluids) should be used for all patients with suspected or confirmed 2009 H1N1.

PLUS

- **Respiratory protection:** Fit-tested disposable N95 respirators or powered air purifying respirators (PAPRs) should be used by healthcare personnel performing or attending aerosol-generating procedures. Fit-testing for N95 respirators should be repeated annually. Follow facility protocols and procedures for decontamination of PAPRs.
- Conduct aerosol-generating procedures in an airborne infection isolation room (AIIR) when feasible. At a minimum, an AIIR must provide negative pressure with a minimum of 6-12 air exchanges per hour. If an AIIR is not readily accessible or available, providers should weigh the risks and benefits of performing the aerosolizing procedure and of transporting the patient to an AIIR, and consider performing the procedure in a single patient room with the door closed.

Resource shortages

CDPHE recognizes that healthcare facilities might experience shortages of personal protective equipment during the influenza season, including shortages of N95 respirators as well as shortages of surgical masks/face masks. In addition, there might be insufficient resources to perform timely fit testing of N95 respirators on numerous employees, particularly if the need arises to switch from one type of N95 respirator to another. There is currently no national definition of what constitutes a shortage, so this will need to be determined by the facility.

- Use other strategies in the hierarchy of controls (source control, engineering, and administrative measures) to reduce the number of workers exposed to patients with suspected or confirmed 2009 H1N1.
- Healthcare facilities choosing to adopt guidance that recommends N95 respirator use for routine care of patients with suspected or confirmed 2009 H1N1 should document any resource shortages, including but not limited to current supplies of respirators (disposable N95 respirators or PAPRs), methods used to attempt to acquire respirators, and fit testing limitations. These healthcare facilities should also consider the following:
 - CDPHE has a limited stockpile of personal protective equipment, including N95 respirators, through the Strategic National Stockpile (SNS). Healthcare facilities can request SNS supplies through their local health department. Since it is not possible to request a specific type of N95 respirator, fit testing might need to be performed on employees if the N95 respirator in the stockpile differs from the N95 respirator the facility has used to previously fit test their employees; this might contribute to resource shortages if the facility does not have the resources for timely fit testing.
 - Maintain a reserve of respirators (disposable N95 respirators and PAPRs) sufficient to meet the needs of aerosol-generating procedures and for use in the care of patients with other diseases that require respiratory protection (e.g. tuberculosis). Respirators should be prioritized for persons attending aerosol-generating procedures on patients with suspected or confirmed 2009 H1N1 or other infections that indicate the use of respirators.
 - Consider alternatives to N95 respirators, such as PAPRs.
 - For information on extending the use of disposable N95 respirators, see OSHA's "Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employees" at the following website:
http://www.osha.gov/Publications/OSHA_pandemic_health.pdf

CDPHE recognizes that controversy exists regarding infection control practices for suspected and confirmed 2009 H1N1 patients. Healthcare facilities, clinicians, or infection preventionists might choose to implement increased levels of infection control. Other organizations, including the Centers for Disease Control and Prevention (CDC), the Occupational Safety and Health Administration (OSHA), the Society for Healthcare Epidemiology of America (SHEA), and the World Health Organization (WHO) have also provided guidance or statements regarding infection control practices for suspected and confirmed 2009 H1N1 patients; these documents might differ from CDPHE guidance presented here. These documents can be found at:

- CDC: Interim Guidance on Infection Control Measures for 2009 H1N1 Influenza in Healthcare Settings, Including Protection of Healthcare Personnel: <http://www.cdc.gov/h1n1flu/guidance/ill-hcp.htm>
- OSHA Statement Re: H1N1-Related Inspections: http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=16602
- SHEA Position Statement: Interim Guidance on Infection Control Precautions for Novel Swine-Origin Influenza A H1N1 in Healthcare Facilities: http://www.shea-online.org/Assets/files/policy/061209_H1N1_on_Letterhead.pdf
- WHO: Infection Prevention and Control in Health Care for Confirmed or Suspected Cases of Pandemic (H1N1) 2009 and Influenza-like Illnesses: http://www.who.int/csr/resources/publications/SwineInfluenza_infectioncontrol.pdf