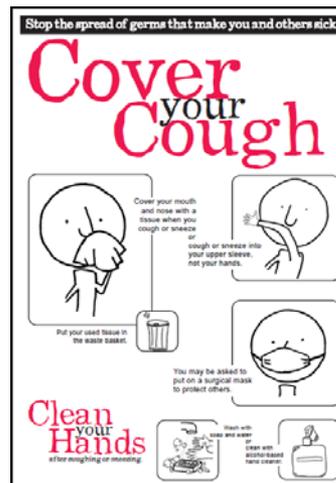


Pandemic Flu: Is Your Healthcare Workplace Prepared?

Addressing Key Flu Issues, Including Mandatory Vaccination & Respirator Policies



NIEHS WETP Awardees Meeting Tuesday October 20, 2009

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H1N1 is NOT Like Seasonal Flu

- ❖ No immunity to the H1N1 virus.
- ❖ Vaccine not available until October/November
- ❖ The H1N1 virus preferentially infects younger people (under 65).
- ❖ Most cases of severe and fatal infections have occurred in adults between ages 30 and 50 years.
- ❖ About one third of the patients who have died have been previously healthy young and middle-aged people.

Comprehensive Infection Control Programs are Needed

- ❖ 1.7 million patient hospital acquired infections (HAI) each year in the US.
- ❖ 99,000 excess patients deaths each year in the US related to HAI.
- ❖ Key elements of a comprehensive infection control program for flu include:
 - Training for employees
 - Early identification and isolation of flu patients
 - Source control measures including respiratory etiquette
 - Hand hygiene
 - Environmental service cleaning
 - Vaccination
 - Proper use of personal protective equipment (PPE)

Influenza Vaccination

- ❖ SEIU encourages all members to get the flu vaccine for seasonal and the H1N1 flu.
- ❖ SEIU supports employer-based voluntary flu vaccination programs as one part of a comprehensive infection control and worker health and safety program

Voluntary Hepatitis B Vaccination is an OSHA Success Story

- ❖ Hepatitis B cases declined from 17,000 cases and 250 deaths among HCWs in 1983 to 400 cases and an undetectable number of deaths in 1995.
- ❖ Voluntary hepatitis B vaccination programs, have reached an acceptance rate of 75% among HCW, accomplished through targeted education, free vaccine, and active declinations.

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Voluntary Vaccination Programs with Strong **EDUCATIONAL** Component are Effective

- ❖ Cleveland Clinic: 38% in 2004, 89% in 2005
- ❖ St Judes in Memphis, TN: 96% in 2006
- ❖ Univ of Iowa Hospital: 84% in 2009

Note: Over 70% achieves "Herd Immunity"

<http://www.nfid.org/HCWtoolkit/BestPracticesToolkitDocument.pdf>

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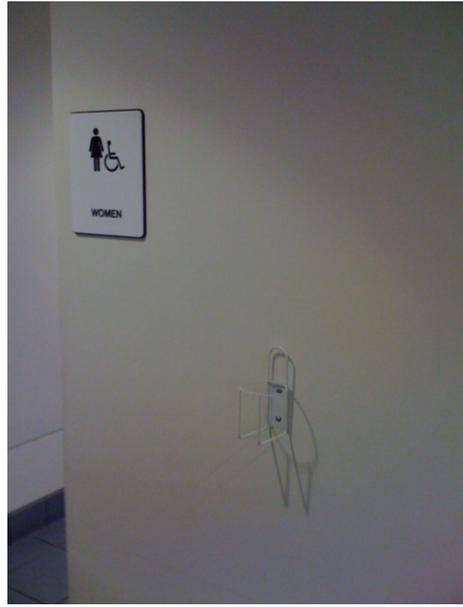
Over Reliance on Vaccination Programs Alone Confers a False Sense of Security



AMERICAN COLLEGE OF
OCCUPATIONAL AND
ENVIRONMENTAL MEDICINE

Good infection control practices can prevent the spread of influenza and other viruses capable of causing influenza-like illness, and vaccinated health care workers must not assume that these simple precautions become irrelevant when they receive an influenza vaccine. Education must stress the paramount importance of good infection control practices at all times.

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Both ACOEM and SEIU Opposes Mandatory Flu Vaccination

Regarding mandatory flu vaccines :

“This is just not the right flu season to take this on,” said Dr. Frieden, the head of CDC.

Source: New York Times: Healthcare Workers Resist Flu Vaccine Rule, September 21, 2009.

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Mandatory Masking of Healthy Healthcare Workers Has No Public Health Value

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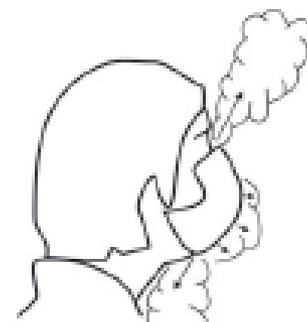
nursealliance
of SEIU Healthcare

*And may exacerbate possible shortage
of surgical masks this flu season*

SURGICAL MASK PERFORMANCE

**Lisa M Brosseau, ScD, CIH, University of Minnesota
Presented at the IOM Workshop, August 2009**

- Surgical masks are not clinically effective for original purpose, i.e. reduction of surgical wound infection
- Surgical masks are ineffective at preventing ILI or lab-confirmed influenza in HCWs [MacIntyre 2009]
- Filter performance with well-controlled aerosol experiments is highly variable (20-80%) and cannot be predicted from FDA required tests
- Faceseal leakage ranges from 15-40%
- FDA does not approve or certify
 - Tests are not useful in discerning “good” from “bad” masks
 - Hospitals not required to use masks cleared by FDA



New York State Mandates Flu Vaccination for Healthcare Workers

- ❖ Aug. 13, the state health commissioner, issued a regulation ordering most health care workers to be vaccinated for seasonal and H1N1 flu by Nov. 30.
- ❖ Temporary restraining order (TRO) issued by judge on October 16.
- ❖ Hearing scheduled for October 30.

New York Health Department does not follow CDC guidance for H1N1, recommending surgical masks, not respirators, for healthcare workers

Interim Guidance on Infection Control Measures for 2009 H1N1 Influenza in Healthcare Settings, Including Protection of Healthcare Personnel **CDC, October 14, 2009**

- ❖ CDC released updated interim guidance on infection control measures to prevent transmission of 2009 H1N1 influenza in healthcare facilities
- ❖ The updated guidance expands on earlier guidance from May 2009 emphasizing that successfully preventing transmission requires a comprehensive approach

Modes of 2009 H1N1 Influenza Transmission – CDC October 14, 2009

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- ❖ Droplet exposure from coughing or sneezing
- ❖ Contact, usually of hands, with an infectious patient or fomite followed by self-inoculation of virus onto mucosal surfaces such as those of the nose, mouth, and eyes
- ❖ **Small droplet nuclei in the vicinity of the infectious individual which remain airborne for several hours**

Transmission of influenza through the air over longer distances, such as from one patient room to another, is thought not to occur.

All respiratory secretions and bodily fluids, including diarrheal stools, of patients with 2009 H1N1 influenza are considered to be potentially infectious.

Growing Evidence for Airborne Transmission of Flu Institute of Medicine's (IOM) report, *Preparing For An Influenza Pandemic: Personal Protective Equipment for Healthcare Workers* (2007)

September 2007

- ❖ Current evidence supports airborne exposure by **droplet nuclei** as likely being one of the routes of flu virus transmission in healthcare settings absent appropriate exposure control measures.
- ❖ This does not preclude transmission by the droplet spray and contact routes absent appropriate control measures.
- ❖ Without knowing the contributions of each of the possible route(s) of transmission, all routes must be considered probable and consequential.

“Studies show that airborne (inhalation) transmission is one of the potential routes of transmission”



REPORT BRIEF •
SEPTEMBER 2009
Respiratory Protection
for Healthcare Workers
in the Workplace Against
Novel H1N1 Influenza A:
A Letter Report

Why Does the Airborne Transmission of Flu Matter ?

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Droplet nuclei can remain airborne for hours moving with air currents, so infection control policies must be revised to protect healthcare workers:

- ❖ 3-foot rule / 6- foot rule must be expanded to include a larger area such as a patient room.
- ❖ Droplet nuclei can remain in the air after the patient is out of the area or room.
- ❖ Surgical masks do not protect wearers from inhaling the small droplet nuclei in surrounding air.
- ❖ N95 or better respirators are needed.

Surgical Masks are Not Respirators ... Respirators are Respirators



A surgical or procedure mask is not a respirator, as defined by OSHA and NIOSH standards



N95
disposable
respirator



PAPR



A respirator is a fitted device that protects the wearer against inhaling harmful contamination in the air.

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Current Interim Guidance for Infection Control of Patients With H1N1 in Healthcare Settings

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Current PPE recommendations:

- Gloves, gown, eye protection, N95 respirator (or higher filtering respirator) on health care worker
- Surgical mask on patient (source control)



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Current Interim Guidance for Infection Control of Patients With H1N1 in Healthcare Settings

Current N95 recommendation:

- For healthcare personnel entering the room of a novel H1N1 patient
- For both aerosol generating procedures and direct patient care
- As part of complete respiratory protection program in accordance with OSHA regulations (including medical clearance, fit testing, training)



Use a Hierarchy of Controls to Prevent Influenza Transmission in Healthcare Settings – CDC

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- ❖ Elimination of potential exposures
- ❖ Engineering controls
- ❖ Administrative (work practice) controls
- ❖ Personal protective equipment (PPE)

Elimination of potential exposures

- ❖ Postponing elective visits and procedures for patients with suspected or confirmed influenza until they are no longer infectious
- ❖ Denying healthcare facility entry to those wishing to visit patients if the visitors have suspected or confirmed influenza

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Engineering controls

- ❖ Install partitions (transparent panels/windows/desk enclosures) in triage areas to shield staff from respiratory droplets
- ❖ Use local exhaust ventilation (hoods, tents, or booths) for aerosol-generating procedures
- ❖ Install hands-free soap and water dispensers, and receptacles for garbage and linens to minimize environmental contact
- ❖ Conduct aerosol-generating procedures in an airborne infection isolation room (AIIR) to prevent the spread of aerosols to other parts of the facility

Administrative (work practice) controls

- ❖ Set up triage stations, manage patient flow, and assign dedicated staff to minimize the number of healthcare personnel exposed
- ❖ Screen personnel and visitors for signs and symptoms of infection at clinic or hospital entrances or badging stations
- ❖ Limit the number of persons present in patient rooms and during aerosol-generating procedures
- ❖ Establish protocols for cleaning of frequently touched surfaces throughout the facility (elevator buttons, work surfaces, etc.)
- ❖ Place facemasks on patients, when tolerated, at facility access points (emergency rooms) or when patients are outside their rooms (diagnostic testing).

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Personal protective equipment (PPE)

- ❖ Gloves
- ❖ Gowns
- ❖ Eye protection
- ❖ Respirators (N95 or better, not surgical masks)
- ❖ Other PPE, as needed for tasks

Use of PPE in accordance with OSHA regulations, including worker training, proper selection, proper sizes, written program, etc.

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State and Local Health Departments Disregarding CDC Guidance

- ❖ Many state and local health departments are recommending surgical masks rather than N95 or better respirators.
- ❖ Many healthcare employers then refer to their health department guidance to justify surgical mask use.

SEIU urges employers follow the current unified Federal Guidance for respirators and not surgical masks to protect healthcare workers.

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California OSHA's New Aerosol Transmissible Diseases Standard

- ❖ The first enforceable *worker health and safety* protection standard for aerosol transmissible disease (ATD) in the United States (effective August 5, 2009).
- ❖ Covers Tb and other ATDs and H1N1 flu (as a novel disease)
- ❖ Could become model for a nationwide OSHA Standard as with California's BBP and Safer Sharps in the 1980s and 1990s.



Nurse Alliance of California celebrates adoption of ATD standard May 21, 2009

