

What Workers Need to Know About Pandemic Flu

Infection Control for Health Care Workers During Pandemic Flu

Health care workers will be at very high risk of becoming infected with the pandemic flu virus when they are providing care for patients with known or suspected pandemic flu. If health care workers are not given effective protections, they will get sick and may die. Sick health care workers may also infect other patients, family members, and the community. If health care workers do not receive adequate protection on the job, they could become fearful of going to work and our ability to care for sick patients could be weakened.

There are effective ways to provide safety and health protection to health care workers during a flu pandemic. But it is the responsibility of employers to **put these protections in place and to plan for a pandemic before it arrives**. Otherwise, it will be too late. This fact sheet will outline the safety and health protections that health care workers need in order to be protected so they can safely care for their patients. These protections are based on recommendations provided by OSHA (Occupational Safety and Health Administration) and CDC (Centers for Disease Control), but in some cases offer a higher level of protection to more fully protect workers.

Develop an Infection Control Program

Before a pandemic occurs, employers should develop a comprehensive **infection control program** for the health care facility. That program should include a written exposure control plan; methods for exposure control; medical surveillance; worker training; communication of hazards; housekeeping; and recordkeeping. See “Factsheet #2: Worker Protection and Infection Control for Pandemic Flu” for details on setting up a program.

Plan and Prepare

In order to effectively respond to the massive effort it will take to provide for the health care needs of the nation in a pandemic, the health care industry must plan and prepare well in advance. This includes addressing the health and safety needs of health care workers who must be protected while they care for patients infected or suspected of being infected with the pandemic flu virus.

Health care facilities can prepare by doing the following before the pandemic arrives:

- Develop an infection control program that will be used to handle patients infected with pandemic flu.
- Have adequate supplies of personal protective equipment (PPE), respirators, cleaning materials, and other safety equipment onsite.
- Provide safety and health training to staff.
- Identify exposure control methods that will be used in the facility.
- If available, have supplies of vaccine and antiviral drugs onsite.
- Identify which health care workers will provide care for patients with pandemic flu.
- Have a respiratory protection program in place that complies with OSHA's 1910.134 standard.
- Identify workers who will be required to wear respirators.
- Make sure that respirator wearers have been medically evaluated to determine whether they can wear respirators and that workers are fit-tested with the make and model respirator they will use.
- Train wearers of respirators in the use and limitations of respirators.

Training for Health Care Workers

Workers should receive safety and health training on pandemic influenza in the language and at the literacy level they understand. Topics that need to be covered include:

- Pandemic flu and its symptoms,
- How influenza is spread to workers,

- Risks of being exposed to the pandemic flu virus in their workplace,
- The employer's infection control plan,
- Infection control methods and the hierarchy of controls,
- Uses and limitations of personal protective equipment (PPE),
- How to safely put on ("don") and take off ("doff") PPE items,
- Respirators as required under the OSHA standard 1910.134,
- The employer's medical surveillance program,
- Hand hygiene, and
- Respiratory hygiene and "cough etiquette".

Identify and Isolate Infected Patients

To prevent the spread of pandemic flu by infected patients in a health care facility, it is critically important to limit contact between infected and non-infected persons. It will be necessary to set up procedures for early identification of possible pandemic flu infected patients and to take **isolation precautions** by moving them away from other persons to defined areas in the facility.

To set up the isolation precautions, health care facilities should do the following:

- In waiting rooms and common areas, provide separation distance between persons with symptoms of respiratory illness and other persons.
- For persons with symptoms of respiratory illness in waiting rooms, place surgical mask on patient (if possible) or ask patient to cover nose and mouth with a tissue when coughing or sneezing.
- For patients with known or suspected pandemic flu, place them in the following locations within the facility:
 - preferably in a negative pressure isolation room,
 - single patient room, with door closed,
 - suspected patients together in designated areas or rooms separate from other patients ("cohort"), and

- patients with confirmed pandemic flu together in designated areas or rooms separate from other patients (“cohort”).
- Limit health care workers’ contact by assigning dedicated staff to care for patients with pandemic flu. Permit only essential personnel to enter the room or areas where pandemic flu patients are located.
- Perform all aerosol-generating procedures, like bronchoscopy and intubation, in negative pressure isolation rooms.
- Teach respiratory hygiene and “cough etiquette” to all patients with suspected and known pandemic flu.
- If possible, establish dedicated entrances and passageways at the facility for pandemic flu patients.

Respiratory Hygiene and “Cough Etiquette”

All patients who are identified with symptoms of respiratory illness, and those patients suspected or known to be infected with pandemic flu, need to be taught respiratory hygiene and “cough etiquette”. This infection control procedure is used to protect other persons from being exposed to the patients’ respiratory secretions when they cough or sneeze. The secretions contain the virus which could infect health care workers and others who may be exposed.

Respiratory hygiene and cough etiquette procedures include:

- Reporting symptoms of respiratory symptoms to health care worker,
- Covering nose and mouth with tissue when coughing or sneezing.
- Disposing of used tissues immediately in nearest waste basket,
- Placing a surgical mask on a coughing patient, if possible, and
- Performing hand hygiene after contact with respiratory secretions.

Hand Hygiene

Washing the hands is one of the most important forms of infection control. It can include washing with soap and water or using alcohol-based hand sanitizing products (gels, foams, or wipes).

Health care workers should use hand hygiene:

- Before and after any patient contacts,
- After removing gloves, and
- After removing any PPE item.

Health care workers should also avoid touching their eyes, nose, mouth, or exposed skin with contaminated hands and should remove contaminated gloves before touching any surface.

Illness Surveillance of Health Care Workers

It is important to identify health care workers with influenza-like symptoms and remove them from the workplace before they spread their infection to other persons, including healthy health care workers or patients who are not infected with pandemic flu.

This identification system should include:

- Having health care workers report their flu-like symptoms,
- Screening all health care workers for flu-like symptoms before they begin their shift, and
- Sending home workers with flu symptoms or pandemic flu and only having them return to work 24 hours after their symptoms/illness is gone.

Personal Protective Equipment (PPE) for Health Care Workers

It is essential that health care workers be provided with adequate personal

protective equipment when providing care for or having contact with patients known or suspected of having pandemic flu. In the absence of a vaccine or effective antiviral medications, PPE is the most crucial piece of infection control that will protect workers from getting pandemic flu themselves. For detailed information on respirators, the most important type of PPE during a pandemic flu, see Factsheet #3, Respirators: One Way of Protecting Workers Against Pandemic Flu.

Health care workers providing **direct care/close contact**, should wear the following PPE:

- Gloves (preferably disposable nitrile or vinyl – avoid latex gloves to prevent latex allergies),
- Gowns (fluid-resistant and disposable),
- Eye protection (face shield or goggles),
- Respirator (minimum NIOSH-certified N95 filtering facepiece; preferably P100 filtering facepiece with elastomeric facepiece seal), and
- Optional – headcover and shoe covers.

Health care workers involved with **aerosol-generating procedures**, like bronchoscopy and intubation or resuscitation of patients (which should be conducted in negative pressure isolation rooms), should wear the following PPE:

- Gloves,
- Gowns,
- Eye protection,
- Headcover and shoe covers,
- Respirator (a powered air purifying respirator or PAPR, equipped with P-100 cartridges).

Other workers who enter a room with a known or suspected pandemic flu patient but provide **no direct care or close contact**, like housekeepers who clean floors or equipment, should wear the following PPE:

- Gloves.
- Gowns.
- Eye protection, and

- Respirator (minimum NIOSH-certified N95 filtering facepiece; preferably P100 filtering facepiece with elastomeric facepiece seal).

Vaccines and Antiviral Medications

There is presently no flu pandemic occurring in the world and there is no vaccine against the pandemic flu virus. When the pandemic flu does arrive, it might take as long as six months to develop an effective vaccine. A pandemic flu vaccine has the potential to offer a significant level of protection for health care workers and others at high risk of exposure.

It is not known if existing antiviral medications for seasonal flu will be effective in preventing people exposed to the pandemic flu virus from getting sick or in treating people who are infected. Until it is determined that existing antiviral medications are effective, or until new a vaccine is developed specifically for the pandemic flu, health care workers need to rely exclusively on the infection control methods that are contained in this factsheet to be protected.

Advance Planning is the Key

If a comprehensive infection control plan is put together **before** the pandemic develops, then it will be possible to have the worker protections immediately implemented whenever the pandemic flu arrives. If employers wait until after the pandemic arrives to develop their infection control plans, it will be too late to adequately protect health care workers. The health of workers, and the patients they care for, depends on being ready.