

Environment, health, & safety

The challenges of influenza season 2009-10

By Nancy L. Hughes, MS, RN

The seasonal influenza season for 2009-10 promises to have numerous challenges. Seasonal influenza is responsible each year for 36,000 deaths and more than 200,000 hospitalizations due to influenza complications. The two main types of influenza virus are type A and type B, with influenza A viruses further broken down into various subtypes. Influenza A viruses can be found in many animals, including chickens, pigs, whales, ducks, and horses. Both influenza A and influenza B viruses are responsible for seasonal influenza epidemics each year.

Influenza season in the Northern Hemisphere will be impacted by the coexistence of the novel influenza A (H1N1), which made its first appearance in the United States April 15. By June 19, all 50 states plus the District of Columbia, Puerto Rico, and the U.S. Virgin Islands reported incidents of infection with novel H1N1. The World Health Organization (WHO) declared a global pandemic of novel H1N1 June 11, raising the pandemic alert level to phase 6. The novel H1N1 and seasonal influenza have the potential to cause significant illness with associated hospitalizations and deaths during the U.S. influenza season.

The novel H1N1 and seasonal influenza are thought to spread in the same way (coughing and sneezing—airborne); however due to the manifestation of nausea, vomiting, or diarrhea or all of those symptoms with novel H1N1, the possibility of spread by droplets on infected objects may exist. New information will emerge as time goes on. A vaccine for novel H1N1 is, as of this writing, entering clinical trial phase and is anticipated to be available in mid-October. Healthcare personnel (HCP) will be included in the high-risk tier to be offered the vaccine.

The seasonal influenza virus vaccine components were selected by the United States Food and Drug Administration's Vaccine and Related Biological Products Advisory Committee on February 18, 2009. The composition is the same as that recommended by WHO for the Northern Hemisphere for the 2009-10 influenza season. The components to be used in the vaccine in the United States are:

- an A/Brisbane/59/2007 (H1N1)-like virus
- an A/Brisbane/10/2007 (H3N2)-like virus
- a B/Brisbane/60/2008-like virus.

Despite the seriousness of seasonal influenza and

the availability of a vaccine, the Centers for Disease Control and Prevention estimate that a mere 40% of HCP receive seasonal influenza vaccination. HCP are a high-risk group for seasonal influenza. Unvaccinated HCP can be a primary cause of influenza outbreaks within healthcare settings. Annual vaccination programs are key to patient safety programs, as they provide a reduction in the chance of nosocomial influenza, which can lead to deaths of those at high risk for complications from influenza. Vaccination programs also protect those who work in healthcare facilities, their families, and the public.

Seasonal influenza can be transmitted by healthy HCP to someone else from 1 day before symptoms begin to 5 days after symptoms start. Asymptomatic seasonal influenza transmission poses a legitimate threat to all patients and HCP in healthcare facilities. To that end, there are many groups advocating for increased efforts to implement and expand seasonal influenza vaccination programs for HCP. If each HCP would take another HCP with them to receive the seasonal influenza vaccine, the vaccination rate would significantly increase. All HCP are encouraged to educate themselves on the common myths and misconceptions and other information about seasonal influenza vaccine to encourage HCP seasonal influenza vaccination rates to rise to acceptable levels of protection.

Steps to be taken by HCP include:

- Get your seasonal influenza vaccine.
- Know how to protect yourself, including consistent use of appropriate personal protective equipment.
- Practice good respiratory etiquette. Use a tissue to cover a cough or, if no tissue is available, cough into your sleeve and follow this with hand washing, to prevent the spread of infectious droplets.
- Practice proper hand washing; this is the most effective method to prevent the spread of disease. Use of alcohol-based hand sanitizer is encouraged for hand hygiene.
- Practice social distancing. Stay home if you are ill and do not attend social events or crowds. Maintain a distance of at least 3 feet from others.
- Know your employer's pandemic plan.
- Consider developing an emergency plan for your family.

Additional resources can be found at www.cdc.gov and www.nursingworld.org. ★

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