

Influenza Overview for Healthcare Providers in Virginia (2013-2014)

Organism	<ul style="list-style-type: none"> • Influenza virus – types A and B cause epidemic disease (type A is further categorized into subtypes); type C infections cause a mild respiratory disease • Frequent mutations of surface glycoprotein genes result in new influenza virus variants <ul style="list-style-type: none"> ○ Antigenic shift → emergence of completely new subtypes (type A only; can become pandemic strain) ○ Antigenic drift → minor changes (all types; leads to frequent outbreaks and epidemics – requires updates to seasonal vaccine components)
Reservoir	Type A – humans, swine, birds, dogs; Types B and C – humans
Communicability	<ul style="list-style-type: none"> • Person-to-person, primarily through droplets produced by coughing and sneezing infected persons; airborne transmission via small aerosolized particles may occur; indirect transmission may occur if a person touches a surface or object with the virus on it and then touches the mouth or nose • Communicable 1 day before and up to 5 to 7 days after symptom onset; may be longer in children or those with weakened immune systems • In U.S., the peak of flu season has occurred anywhere from late November through March • In pandemics, entire population susceptible; attack rates higher across all age groups
Mortality Rates	<p>Deaths result from pneumonia and exacerbations of cardiopulmonary and other chronic conditions.</p> <ul style="list-style-type: none"> • Interpandemic years: 1976-2007– 9.0 deaths per 100,000 Americans per season • Pandemics: 1918 Spanish flu – 218.4 deaths per 100,000 Americans; 1957 Asian flu – 22 deaths per 100,000; 1968 Hong Kong flu – 13.9 deaths per 100,000; 2009 H1N1 – not available
Incubation Period	1-4 days (mean 2 days)
Symptoms	<ul style="list-style-type: none"> • Acute onset of fever, myalgia, headache, malaise, sore throat, rhinitis, nonproductive cough. Occasionally, vomiting and diarrhea occur, although this is more common in children than adults. • Uncomplicated influenza typically resolves after 3-7 days; cough and malaise can persist for >2 weeks.
Complications	<ul style="list-style-type: none"> • Increased risk for those aged < 5 years or ≥ 65 yrs; residents of nursing homes and other chronic-care facilities; persons w/ chronic cardiac, pulmonary, metabolic, renal conditions, and hemoglobinopathies; persons with any condition that compromises respiratory function; immunosuppressed; pregnant or postpartum women • Pneumonia - secondary bacterial (most frequent) and primary influenza; sinusitis or otitis media; worsening of underlying medical conditions; myocarditis; encephalopathy; transverse myelitis; myositis; pericarditis
Laboratory Tests	<p>Rapid antigen tests; viral culture; serology; PCR; EIA; immunofluorescence</p> <p>More information: http://www.cdc.gov/flu/professionals/diagnosis/rapidclin.htm</p>
Infection Control	<p>Strict hand hygiene; standard precautions; droplet precautions for 7 days after onset or until 24 hours after resolution. N-95 respirator is recommended for aerosol-generating procedures or when novel virus is suspected.</p>
Surveillance	<p>Required reporting: 1) number of seasonal influenza cases per week (by type, if utilizing test that differentiates between A and B); 2) influenza-associated deaths in children <18 years of age; 3) suspected or confirmed cases of novel influenza A virus infection (e.g., associated with international travel or animal exposure), and 4) outbreaks. Call local health department for details.</p>

Influenza Vaccine Recommendations, 2013-2014

Vaccine recommendations for the 2013-2014 influenza season are contained in Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States 2013–2014, available at: <http://www.cdc.gov/mmwr/pdf/rr/rr6207.pdf>.

Routine annual influenza vaccination is recommended for all persons aged ≥ 6 months. To permit time for production of protective antibody levels, vaccination optimally should occur before onset of influenza activity in the community. Therefore, vaccination providers should offer vaccination as soon as vaccine is available. Vaccination should be offered throughout the influenza season (i.e., as long as influenza viruses are circulating in the community).

Guidelines for the Use of Antiviral Drugs for Influenza Prophylaxis and Treatment

CDC recommendations for the use of antiviral agents for influenza prophylaxis and treatment may be found at: <http://www.cdc.gov/flu/professionals/antivirals/index.htm>

Recommendations may change during the influenza season. Please check the website regularly for updates.