

Influenza

Definition:

Influenza (the flu) is a contagious respiratory illness caused by influenza viruses. It can cause mild to severe illness, and can lead to death. Several strains of influenza may circulate at the same time. The most commonly circulating strains of influenza are: influenza A/H1, influenza A/H3 and influenza B. Novel or variant influenza are strains of influenza that are not commonly seen. Variant strains may come from swine, avian, canine or other animal sources, or may occur as a reassortment.

Signs and symptoms:

Symptoms of influenza include a fever, cough, sore throat, runny nose, muscle or body aches, headaches and fatigue. Vomiting and diarrhea are more common in children than adults.

Transmission:

Influenza is transmitted from person to person mainly by droplets when people with the flu cough, sneeze or talk. It is also possible to get the flu from touching a surface that has flu virus on it, and then touching your own mouth or nose. Most people may be able to infect others up to 1 day before symptoms develop and up to 5-7 days after becoming sick. Average incubation period is 2 days.

Diagnosis:

Influenza-like illness (ILI) is defined as a fever greater than 100°F with a cough and/or sore throat. Influenza virus is diagnosed through a lab test. The most common types of tests available are:

- Rapid tests – quick turn-around (usually 20 minutes), but may have false positives and false negatives. Some rapid tests can distinguish between A and B strains, but cannot differentiate the sub type.
- PCR - longer turn-around time (usually around 48 hours) and has very few false positives or false negatives. PCR can distinguish between A and B strains, and some labs can sub type the influenza A sample to determine if they are H1 or H3. Sub typing takes additional time to complete.

Role of the School Nurse:

Prevention

- Vaccination – influenza requires an annual vaccination. The flu vaccine always contains 3 strains including an influenza A/H1, influenza A/H3 and an influenza B strain. The strains included may change every year. Not all years will have a good match between the circulating strains and the strains included in the vaccine. A school vaccine toolkit is available at <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/influenza/maineflu/h1n1/educators.shtml>
- Provide training and resources for staff and students on the following: (posters available at: <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/influenza/flu-posters.htm>)
 - Hand washing
 - Respiratory etiquette (covering cough)
 - Staying home when ill

Treatment Recommendations

- Prescription antiviral treatment for influenza is available and is most effective if started within 48 hours after symptom onset. (<http://www.cdc.gov/flu/professionals/antivirals/index.htm>)
- Prescription antiviral prophylaxis may be considered for high risk contacts of cases of influenza. Persons at high risk include:

- Children less than 5 years
- Adults greater than 65 years
- Persons with chronic underlying conditions including asthma and diabetes
- Persons with immunosuppression
- Women who are pregnant or postpartum
- Persons less than 19 years of age on long term aspirin therapy
- American Indians/Alaska Natives
- Persons who are morbidly obese
- Residents of nursing homes and other chronic-care facilities

Exclusions

- Students and staff with influenza or ILI should be excluded from school and school related activities until at least 24 hours after symptoms resolve without the use of antipyretic drugs.
- It is recommended that any child with a fever of 100°F or greater should be excluded from school, please follow your individual school's guidelines.

Reporting Requirements

- Individual cases of seasonal influenza are not reportable.
- All cases of variant or novel influenza are reportable.
- Any sudden increase of ILI (within a classroom, wing etc) should be considered a potential outbreak and should be reported.
- If your school has greater than 15% absenteeism this should be reported through the MEDMS 15% absentee application. If the majority of symptoms are respiratory – this will be considered an ILI outbreak.

Resources:

- Maine DOE website <http://www.maine.gov/education/sh/>
- Maine CDC influenza website (including fact sheet) www.maine.cdc.gov
- Influenza Posters <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/influenza/flu-posters.htm>
- Weekly Influenza Surveillance Reports <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/influenza/influenza-surveillance-weekly-updates.shtml>
- School-based Vaccine Clinic Information <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/influenza/maine/cvcc/educators.shtml>
- Federal CDC Influenza website <http://www.cdc.gov/flu>
- MEDMS training webinar http://www.maine.gov/tools/whatsnew/index.php?topic=SLDS_sessions&id=93352&v=Article