

Respiratory Outbreaks – Including Influenza

Module 6



Learner Outcomes

By the end of this module you will be able to:

- Outline the case definition for a respiratory outbreak.
- Outline the case definition for an INFLUENZA outbreak.
- Explain the difference between a suspect and confirmed outbreak.
- Explain the difference between a suspect and confirmed INFLUENZA outbreak.
- Describe the purpose of influenza immunization.
- Explain the difference between antivirals for prevention and antivirals for treatment.



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Background



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Respiratory Outbreaks

- Respiratory tract infections are commonly diagnosed infections in long-term care home (LTCH) residents.
- Respiratory outbreaks are more common fall to early spring.



Respiratory Outbreaks

- Data from the Public Health Ontario Laboratory (PHOL) indicates the most common respiratory viruses are:
 - influenza A and B
 - entero/rhinovirus
 - coronavirus
 - respiratory syncytial virus (RSV)
 - parainfluenza
 - metapneumovirus



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Case Definitions



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Case Definitions

- As symptoms will vary based on the infectious agent, the case definition will be developed in consultation with the TBDHU and will include at least two (2) or more respiratory symptoms.
 - fever OR abnormal temperature or chills
 - new or worsening cough OR shortness of breath
 - runny nose, congestion or sneezing
 - sore throat OR difficulty swallowing



Case Definitions

- For influenza, the following should be incorporated into the case definition:
 - abnormal temperature
 - fever
 - malaise
 - myalgia
 - loss of appetite
 - headache
 - chills



Declaring an Outbreak



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Suspect Outbreak – Respiratory

- A suspect outbreak is:
 - two cases meeting definition within 48 hours in a specific area

OR

- more than one unit having a case that meets definition within 48 hours



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Suspect Outbreak – Influenza

- A suspect outbreak is:
 - two cases meeting definition within 48 hours in a specific area
- OR**
- more than one unit having a case that meets definition within 48 hours
- OR**
- 1 lab confirmed case of influenza



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Confirmed Outbreak – Respiratory

- A confirmed respiratory outbreak is:
 - three cases or more cases meeting definition (lab confirmation not necessary) within 48 hours in a specific area

OR

- More than two units having a case meeting definition within 48 hours

OR

- Two cases meeting definition; one must be laboratory-confirmed



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Confirmed Outbreak – Influenza

- A confirmed respiratory outbreak is:
 - Two or more cases of health care associated influenza within 48 hours in a specific area; one must be laboratory-confirmed



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Calling an Outbreak Over



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Calling an Outbreak Over

- As a general rule, viral respiratory outbreaks, including influenza, can be declared over if:
 - no new cases have occurred in 8 days from the onset of symptoms of the last resident case

OR

- 3 days from last day of work of an ill staff, whichever is longer.



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Calling an Outbreak Over

- The time until the outbreak can be declared over can be shortened if:
 - symptoms in the last resident case resolve sooner than 5 days

OR

- the last case is a staff member who was away from work (according to exclusion policy) throughout their period of communicability



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Influenza Immunization



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Annual Immunization

- The Ministry of Health and Long-Term Care (MOHLTC) supports annual influenza immunization, ***before the influenza season starts***, as the primary strategy to minimize the impact of influenza on LTCH residents.



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Annual Immunization Policies

- LTCH immunization policies should address influenza immunization requirements for:
 - residents
 - staff
 - volunteers
 - private pay caregivers AND
 - visitors



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Immunization During an Influenza Outbreak

- During a confirmed influenza outbreak, immediate immunization should be offered to all unimmunized, well:
 - residents
 - staff
- Antivirals may be needed as immunization can take up to 2 weeks to become effective.
- More information about antivirals will be presented later in this module.



Influenza Antivirals



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Recommendations

- Antiviral prophylaxis **should not replace annual influenza immunization.**
- Antivirals are recommended for the management of institutional outbreaks of influenza A and/or influenza B.
- Antivirals can quickly bring influenza outbreaks under control in conjunction with other control measures.
 - See modules 3 & 4 for more information.



Antivirals for Prevention



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Unaffected Residents

- During a laboratory-confirmed outbreak, antivirals for prevention will be offered to all residents in the outbreak-affected area who are not already ill with influenza, whether previously vaccinated or not, until the outbreak is declared over.
- They should begin taking the medication as soon as the influenza outbreak is confirmed.



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Staff Vaccinated Less than Two Weeks

- During a lab-confirmed outbreak, **staff vaccinated for less than two weeks (at the time the outbreak was declared) should take antivirals for two weeks after vaccination or until the outbreak is declared over (whichever comes first).**
 - It takes two weeks to develop antibodies to the influenza virus after receiving the vaccine.
 - Antivirals do not interfere with the immune response to vaccine.



Unvaccinated Asymptomatic Staff

- During a laboratory-confirmed outbreak, all unvaccinated asymptomatic staff who work in the area of the LTCH where the influenza outbreak is occurring should be advised to take prophylactic antiviral medication until the outbreak is declared over.
 - They should begin taking the medication as soon as the influenza outbreak is confirmed.



Vaccine not Well-Matched – Staff

- When the circulating strain is not well-matched by the vaccine during a laboratory-confirmed outbreak, antivirals should be offered to all staff, regardless of vaccination status, until the outbreak is declared over.
- The TBDHU will notify the LTCH when this is necessary.



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Antivirals for Treatment



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Residents

- Treatment decisions for the residents is the responsibility of the attending physician.
- All LTCH residents are eligible for prescription drug coverage under the Ontario Drug Benefit (ODB) Program.



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Residents

- Treatment should be started within 48 hours (or less) of onset of symptoms for maximum effectiveness.
- It is recommended that all LTCH have pre-authorized orders for antiviral medication (for prevention and treatment) to ensure there are no delays in providing the medication.



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Staff

- Prescriptions for their personal antiviral treatment is the responsibility of the staff.
- Health care workers are not eligible for prescription drug coverage under any circumstances from the ODB Program.



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Before ending the module...



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Check your learning

Now that you have reached the end of the module, can you:

- Outline the case definition for a respiratory outbreak?
- Outline the case definition for an INFLUENZA outbreak?
- Explain the difference between a suspect and confirmed outbreak?
- Explain the difference between a suspect and confirmed INFLUENZA outbreak?
- Describe the purpose of influenza immunization?
- Explain the difference between antivirals for prevention and antivirals for treatment?



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Back at work

When you return to work, what will you do differently as a result of this module?



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References

- A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes; Ministry of Health and Long-Term Care; September 2016



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