

Outbreaks – An Overview

Module 2



Learner Outcomes

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

- Define an outbreak.
- Identify key provincial documents developed to assist the LTCH and public health with prevention, detection and management of outbreaks.
- List the six steps in managing an outbreak.



What is an outbreak?

- An outbreak is defined as an increase in the number of cases beyond what is normally expected based on surveillance data.
- This statement reinforces the importance of ongoing surveillance.



Respiratory outbreaks

- Respiratory tract infections are in long-term care home (LTCH) residents.
- Public Health Ontario Laboratory (PHOL) data indicates the most common viruses:
 - influenza A and B
 - entero/rhinovirus
 - coronavirus
 - respiratory syncytial virus (RSV)
 - parainfluenza,
 - metapneumovirus



Respiratory outbreaks

- Occasionally two or more infectious agents are identified in an outbreak.
- See Module 6 for additional information (including influenza).



Gastroenteritis Outbreaks

- Gastroenteritis outbreaks can be caused by bacteria or viruses contracted through contaminated foods or beverages as well as through contact with contaminated items or infected persons.
- May also be referred to as:
 - gastrointestinal outbreaks
 - enteric outbreaks
- See Module 7 for additional information.



Outbreaks Specific Guides



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Outbreak Specific Guides

- The Ontario Ministry of Health and Long-Term Care developed guides for LTCH.
- However, the guides can be implemented in principle and where applicable in other institutional settings (e.g. retirement homes).
- References to various sections of the guidelines will be included throughout the remaining modules.



LTCH Outbreak Specific Guides

A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes

Ministry of Health and Long-Term Care

September 2016



Control of Gastroenteritis Outbreaks in Long-Term Care Homes

A Guide for Long-Term Care Homes and Public Health Unit Staff

Public Health Division
Ministry of Health and Long-Term Care

October 2013



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Outbreak Management



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Outbreak Management

- The remainder of this module will provide an overview of the steps in the outbreak management process.
- The remaining modules will provide additional information to support each step.



The Steps

1. Prepare ahead of time
2. Identify early and take initial steps
3. Prevent further spread
4. Notify public health
5. Take next steps
6. Debrief for lessons learned



Prepare Ahead of Time



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Prepare ahead of time

- To ensure the LTCH is prepared, the Thunder Bay District Health Unit (TBDHU) recommends:
 - All outbreak policies and procedures are updated annually or as needed. The TBDHU is available to consult.
 - Medical directives are in place and all necessary consents are signed.
 - All necessary supplies are accessible and readily available in case of outbreak.
 - All staff are updated on outbreak management.
 - Staff influenza immunization is current.



Identify Early and Take Initial Steps



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Identify early

- Early detection and response is critical to:
 - put in place control measures to contain the outbreak
 - decrease the duration of the outbreak
 - reduce the spread to other residents and staff
- If front-line staff suspect an outbreak they should report it to the registered staff immediately.



Identify early

- A line list is tracking system that will be started by the registered staff to monitor the spread of illness.
- The line list will track onset of symptoms and other critical information.
- The TBDHU requires a separate line list for:
 - residents
 - staff
- See Module 6 for more information.



Identify early

- Symptomatic individuals should be placed in isolation as soon as possible, even if suspect, to take efforts to contain the spread and reduce the impact of the outbreak.



Prevent Further Spread



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Prevent Further Spread

- To prevent further spread of the infectious agent and to contain the outbreak, outbreak control measures must be implemented.
 - routine practices
 - additional precautions
 - increased environmental cleaning (see Module 9)
 - resident controls (see Module 5)
 - staff, volunteer & student controls (see Module 5)



Prevent Further Spread – Routine Practices

- Routine practices emphasize the standard level of care to be used by health care workers with all residents during all care to prevent and control both exposure to and the transmission of infectious agents in LTCHs.
- Routine practices are based on the idea that all residents are potentially infectious, even when they have no symptoms and include hand hygiene and personal protective equipment (PPE).



Prevent Future Spread – Additional Precautions

- Additional precautions are used in addition to routine practices for certain infectious agents (e.g. norovirus) or clinical presentations (e.g. diarrhea).
- These precautions are based on the mode of transmission (e.g. contact, droplet, airborne).
- See Module 4 for more information.



Notify Public Health



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Notify Public Health

- All outbreaks in institutional settings must be reported IMMEDIATELY as per Ontario Regs 559/91 and amendments under the Health Protection and Promotion Act (HPPA).



Notify Public Health

- The TBDHU will provide initial assistance by:
 - reviewing the line list and confirming if an outbreak exists
 - developing a case definition
 - A case definition lists the clinical criteria used to determine whether a person's illness is included as a case in an outbreak investigation.
 - See Modules 6 & 7.



Take Next Steps



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Take Next Steps

- Once the outbreak has been declared, the LTCH can take the next steps to containing the outbreak:
 - and set a meeting
 - communicate with stakeholder groups
 - collect clinical specimens (in consultation with the TBDHU) and submit to Public Health Ontario lab



Outbreak Management Team

- An outbreak management team (OMT) will be assembled.
- The OMT directs all aspects of an outbreak.
- The meeting should take place on day 1 or 2.
- Additional meetings will be held as necessary.
- The OMT should include representation from the TBDHU as well all programs including front line staff, dietary and housekeeping.
- The OMT must include staff who have the authority to make decisions.



Communication with Stakeholder Groups

- LTCH must notify the following stakeholders:
 - residents and family members
 - staff and volunteers
 - courier services for specimen pick-ups
- The LTCH should post:
 - outbreak signage at entrances and the affected unit(s)
 - additional precaution signage outside the residents' rooms as appropriate



Clinical Specimens

- Collecting clinical specimens is important so the infectious agent can be identified.
- The TBDHU will provide an outbreak investigation number and specimen collection kits.
- Specimens will be submitted to the Public Health Ontario Laboratory.
- See Module 5 for more information.



Ongoing Public Health Assistance

- The TBDHU will continue to assist by:
 - sending notifications to external stakeholders
 - providing guidance for outbreak management
 - reviewing rates of influenza immunization during respiratory outbreaks and providing guidance



Debrief for Lessons Learned



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Debrief for Lessons Learned

- Once outbreak declared over, the Outbreak Management Team (OMT) will hold a debrief meeting.
- This meeting will generate a list of lessons learned that can be applied to prevent or improve the management of future outbreaks.
 - future preventive actions
 - necessary policy/protocol changes
- Minutes will be taken by a representative from the facility for future reference.



Before ending the module...



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Check your learning

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

- Define an outbreak?
- Identify key provincial documents developed to assist the LTCH and public health with prevention, detection and management of outbreaks?
- List the six steps in managing an outbreak?



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Back at work

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



References

- [A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes; Ministry of Health and Long-Term Care; September 2016](#)
- [Control of Gastroenteritis Outbreaks in Long-Term Care Homes; A Guide for Long-Term Care Homes and Public Health Unit Staff; Public Health Division Ministry of Health and Long-Term Care; October 2013](#)

