

Line Listing and Specimen Collection

Module 5



Thunder Bay District
Health Unit

Learning Outcomes

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

- Explain the role of the line list in outbreak management.
- Identify when cases should be added.
- Explain how an outbreak number is obtained.
- Recall the steps in collecting specimens for both respiratory and gastroenteritis outbreaks.
- Describe the process for transporting specimens.



Thunder Bay District
Health Unit



Line Listing



Thunder Bay District
Health Unit

Line Listing 101

- A line list is a table that summarizes information about cases (possible, probable or confirmed) associated with an outbreak.
- This information is collected through the long-term care home's surveillance program.
- There must be separate lists for residents and staff.



Thunder Bay District
Health Unit

Line Listing 101

- Cases are added to the line list when they exhibit symptoms and meet the case definition.
 - See modules 6 & 7 for more information on case definitions.
- Laboratory confirmation of illness is not required to line-list individuals.



Thunder Bay District
Health Unit

Line Listing 101

- Line lists are available from the TBDHU.
- They must be faxed OR discussed with TBDHU staff **DAILY**.
- It is best practice to have ONE MASTER line list.
 - A “working copy” can be used if needed.

Resident Line List

- A resident line list should include the following information:
 - Case identification; e.g. name, unit, room, gender, age
 - Date of onset of first symptoms; specific symptoms
 - Complications; for example bronchitis, pneumonia
 - Diagnostics; e.g. nasopharyngeal and results, x-ray
 - Vaccinations
 - Medications
 - Status; e.g. date isolated, date resolved



Resident Line List

- The outbreak investigation number must be recorded on the line list.
 - The outbreak investigation number will be provided by the TBDHU.
- The line list may be expanded to include other relevant information as the investigation moves forward.



Staff Line List

- The staff line list is identical to the resident list with the exception of the case identification information.
- The staff line lists requires last day worked.
- The outbreak investigation number must be recorded on the line list.
 - The outbreak investigation number will be provided by the TBDHU.
- The line list may be expanded to include other relevant information as the investigation moves forward.



Specimen Collection



Thunder Bay District
Health Unit

Specimen Collection

- Specimens must be taken as soon as the outbreak is declared.
- It is best to take specimens from individuals who appear to be the most symptomatic as these specimens have the highest viral load, resulting in a higher detection rate.



Thunder Bay District
Health Unit

Consultation with TBDHU

- TBDHU staff will discuss how specimens will be collected, stored and submitted.
- The most current Public Health Ontario (PHO) Laboratory [specimen collection instructions](#) on the PHO website including [Labstracts](#) will be referenced .
- This will ensure that the most up-to-date instructions, proper laboratory requisitions and appropriate collection kits are used.



Thunder Bay District
Health Unit

Collection Kits

- Collection kits can be delivered to the facility by calling the TBDHU at 625-8318 from Monday to Friday, 8:30am to 4:30pm.
 - The toll-free number is 1-888-294-6630, ext. 8318.
- The TBDHU has a 24/7 on call system and can be reached after hours, weekends and holidays by calling Nurses Registry at 807-624-1280.



Thunder Bay District
Health Unit

Containers

- All **specimen containers** must include the resident's name and date of birth.
- Please check to ensure the container has not expired.



Thunder Bay District
Health Unit

Processing

- The PHO Laboratory will not process specimens with:
 - incomplete labelling/information
 - leaking specimens
 - specimens collected in improper or expired kits



Thunder Bay District
Health Unit

Respiratory Outbreaks



Thunder Bay District
Health Unit

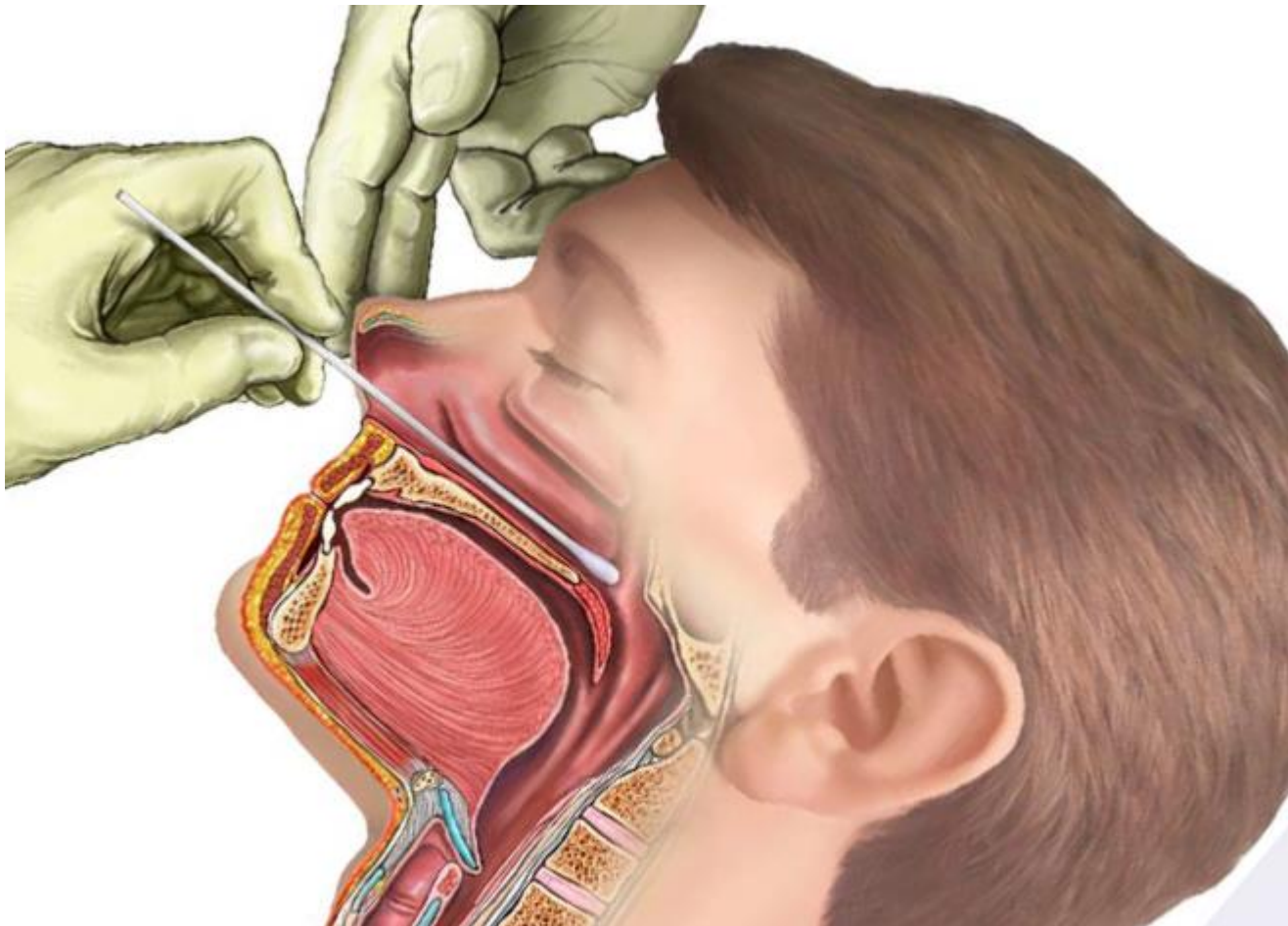
Respiratory Kits

- Each kit includes complete instructions on collection, storage, and transportation; if these instructions are not followed the sample may not be tested.
- Facilities can collect up to 4 specimens (4 residents) for a respiratory outbreak.
- Specimens are collected in order to identify the organism; RSV, influenza virus A & B or parainfluenza virus.
- The kit contains a nasopharyngeal swab (NP) swab.



Thunder Bay District
Health Unit

NP Swab Technique



Thunder Bay District
Health Unit

NP Swab Technique

- Wear appropriate personal protective equipment (PPE).
- Tilt the patient's head back.
- Remove any excess mucous using a cotton tipped swab.
- Gently bend the wire NP swab while in the sterile package, to give it a slight arc.
- Insert the flexible NP swab into one nostril.



NP Swab Technique

- The NP swab should be inserted one-half its length.
- Rub the swab back and forth several times, and leave the swab in place for a few seconds to absorb the material.
- Withdraw the swab and insert into the transport medium.
- [Click here](#) to view a video to reinforce NP swab collection technique.



Completing the Requisition

- Include:
 - name, date of birth, gender and health card number
 - name of the facility
 - phone and fax number
 - outbreak investigation number
 - name of TBDHU public health nurse as the investigator
 - test requested; note respiratory outbreak testing
 - specimen type and site; select nasopharyngeal
 - patient setting; choose institution
 - reason for the test; select diagnostic and the clinical information (e.g. respiratory symptoms; influenza high risk) as well as note the date of specimen collection and the date of onset



Requisitions

- The laboratory requisition must be placed in the pocket on the outside of the bag, NOT in the bag itself.



Thunder Bay District
Health Unit

Storage

- All NP swabs should be kept in the fridge until the courier picks up to ensure the specimen is not compromised.
- NP swabs can be stored in the refrigerator for up to 5 days.



Thunder Bay District
Health Unit

Gastroenteritis Outbreaks



Thunder Bay District
Health Unit

Gastroenteritis Kits

- This kit is also referred to as a stool kit.
- Each kit includes complete instructions on collection, storage, and transportation; if these instructions are not followed the sample may not be tested.
- Facilities can collect up to 5 specimens (5 residents) for a gastroenteritis outbreak.



Thunder Bay District
Health Unit

Gastrointestinal Kits

- This kit includes 2 vials, each with a colour-coded cap:
 - Green – for bacterial
 - White – for viral and toxin
- Why? The 2 vials allow the investigation to be done simultaneously at the beginning of an outbreak when the cause is unknown.



Thunder Bay District
Health Unit

Gastrointestinal Kits

- Specimens are collected in order to identify the organism; bacteria or virus.
- Specimens must be collected in the order stated on the instruction sheet.
- Collect enough stool in each container to the “fill line”.
- Make sure the lid is on tightly.



Thunder Bay District
Health Unit

Completing the Requisition

- Include:
 - name, date of birth, gender and health card number
 - name of the facility
 - phone and fax number
 - outbreak investigation number
 - name of TBDHU public health nurse as the investigator
 - test requested; note gastroenteritis outbreak
 - specimen type and site; select faeces
 - patient setting; choose institution
 - reason for the test; select diagnostic and the clinical information (e.g. gastroenteritis) as well as note the date of specimen collection and the date of onset



Requisitions

- The laboratory requisition must be placed in the pocket on the outside of the bag, NOT in the bag itself.



Thunder Bay District
Health Unit

Storage

- Place specimens in the refrigerator immediately. Do not freeze.
- They can be stored for up to 3 days.



Thunder Bay District
Health Unit

Testing

- Once the PHO Lab has confirmed the organism on 2 specimens they will not continue to test for that type of organism.
- For example, if two cases of norovirus are detected they will not test again for norovirus but will continue to test for C. difficile.



Thunder Bay District
Health Unit

Transportation



Thunder Bay District
Health Unit

Transportation

- Use the “blue bags” provided by the Public Health Ontario Laboratory (PHO Lab).
- These bags can also be used to store specimens in the refrigerator until they are transported to the PHO Lab.
- Transport on ice in warm weather.



Thunder Bay District
Health Unit

Transportation

- The PHO lab is open:
 - Monday to Friday from 8:00am to 5:00 pm
 - Saturday from 8:00 am to 3:45 pm
- If the specimen is to be transferred on a Saturday, please call first.
- The lab is located at 336 S. Syndicate Ave.
- The phone number is 807-622-6449.



Thunder Bay District
Health Unit

Before ending the module...



Thunder Bay District
Health Unit

Check your learning

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

- Explain the role of the line list in outbreak management?
- Identify when cases should be added?
- Explain how an outbreak number is obtained?
- Recall the steps in collecting specimens for both respiratory and gastroenteritis outbreaks?
- Describe the process for transporting specimens?



Thunder Bay District
Health Unit

Back at work

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



Thunder Bay District
Health Unit

References

- [Public Health Ontario; Laboratory Services; Test Directory Index](#)
- [Public Health Ontario; Laboratory Services; Lababstracts](#)



Thunder Bay District
Health Unit