



# COVID-19 Testing in Long-Term Care Homes

November 2020

Michele Henry, Laboratory Network Operations Director, Ontario Health

Julianne Kus, Clinical Microbiologist, PHO

Romy Olsha, Vaccine Effectiveness Coordinator, PHO

Aurel Tamburri, Operations Director, PHO

# Objectives

By the end of this session, you will understand:

- The changes in policy for testing in long-term care homes (LTCHs)
- How to collect samples for COVID-19 testing
- How to complete the requisition form for COVID-19 testing
- How to properly package the sample for shipping

## Changes in testing in long-term care

- Ministry of Long-Term Care Directive dated November 23
- Long-term care homes need to ensure that staff, students and volunteers have a negative COVID-19 test:
  - orange, red and grey zones, every week
  - green and yellow zones, every two weeks
- Build capacity in LTCH to conduct testing in the home

# Accurate and timely results lead to better patient care and outbreak response

## Specimen Collection

- Appropriate specimen type is essential
- High quality specimen collection leads to fast and accurate results

## Fully completed requisition

- Allows accurate patient identification and cross-reference with the specimen
- Allows lab to assign appropriate testing to the specimen
- Allows lab to provide results to right patient and physician in a timely manner
- Allows linkage of patient results during outbreak response
- Provides high quality data for provincial COVID-19 surveillance

## Proper packaging and shipping

- Required by law
- Prevents leakage and rejection of testing
- Prevents exposure to those who are transporting samples
- Prevents exposure to the lab staff during receipt and sorting of samples

# Specimen collection

Julianne Kus, Clinical Microbiologist, PHO



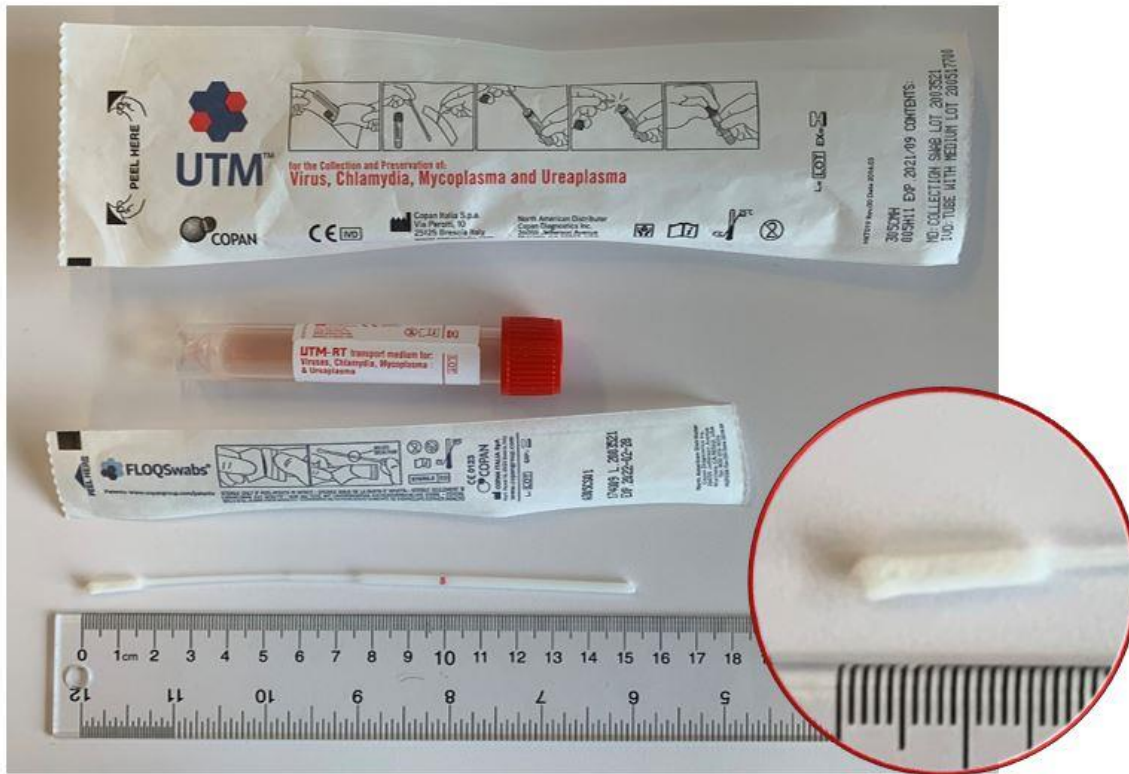
## Specimens for COVID-19 testing

- Lab testing of SARS-CoV-2 (COVID-19) is similar to that of other respiratory virus (e.g., influenza).
- A specimen is collected from the patient and sent to the lab where polymerase chain reaction (PCR) testing occurs.
- PCR testing is highly sensitive and accurate but a good quality specimen is needed for the best results.
- Proper specimen collection, labelling, packaging and shipping are all essential steps for quality testing.

# Typical specimen collection kits

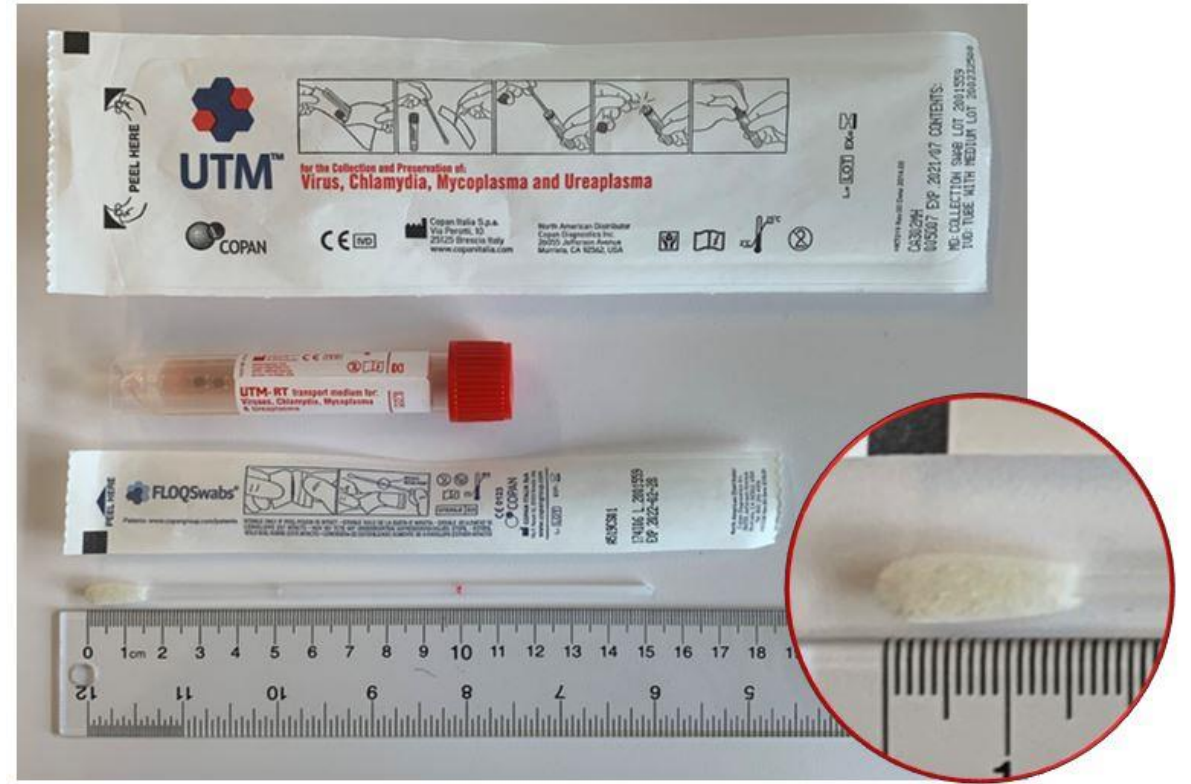
## NP swab + media

Can be used for NPS, throat, nasal, combined



## Throat/nasal swab + media

Can be used for throat, nasal, combined



## Specimen collection types: NPS

- Nasopharyngeal specimens are the preferred specimen type. They are collected with a Nasopharyngeal swab (NPS).
- Considered the “gold standard”
- Provides highest sensitivity
- Well studied for detection of other respiratory viral pathogens
- Somewhat invasive, often not comfortable for patients
- Controlled Act which can only be performed by certain Healthcare Providers (HCPs)
- For instructions on how to collect Nasopharyngeal specimens, see Public Health Ontario’s [Nasopharyngeal Specimen Collection Instructions](#).

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Virus respiratory kit (nasopharyngeal) specimen collection instructions [Internet]. Toronto, ON: Queen’s Printer for Ontario; 2020 [cited 2020 Dec 07]. Available from: <https://www.publichealthontario.ca/en/laboratory-services/kit-test-ordering-instructions/virus-respiratory-kit>



## An alternative to NPS

1. If NPS swabs are not available (larger swab provided) OR
2. If patient cannot tolerate NPS swabs OR
3. If a nurse/physician or delegated individual is not available to collect NPS

The preferred specimen is a Combined Throat and Anterior Nasal swab

This specimen is advantageous as:

- Sensitivity approximates sensitivity of an NP specimen
- May be better tolerated by patients as it is less invasive
- This is not a controlled act and can be carried out by anyone with appropriate training
- Can be performed with an NP swab or larger throat/nasal swab

Ontario Agency for Health Protection and Promotion (Public Health Ontario). The use of alternate specimen collection methods for COVID-19 PCR testing [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 Nov 24]. Available from:

<https://www.publichealthontario.ca/-/media/documents/ncov/evidence-brief/2020/08/eb-covid-19-pcr-testing-alternative-collection-testing.pdf?la=en>

## Oropharyngeal/Throat *combined* with Anterior Nares/Nostril

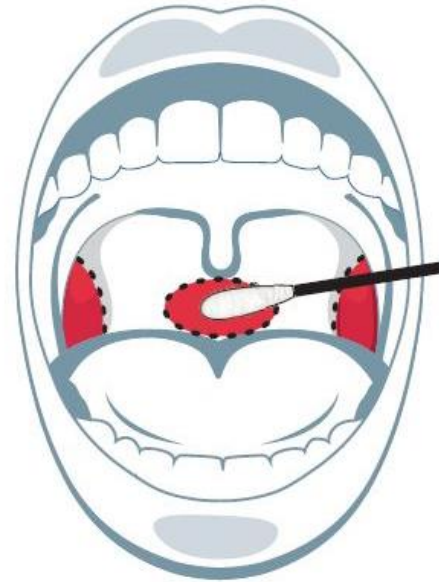
Public  
Health  
Ontario

Santé  
publique  
Ontario

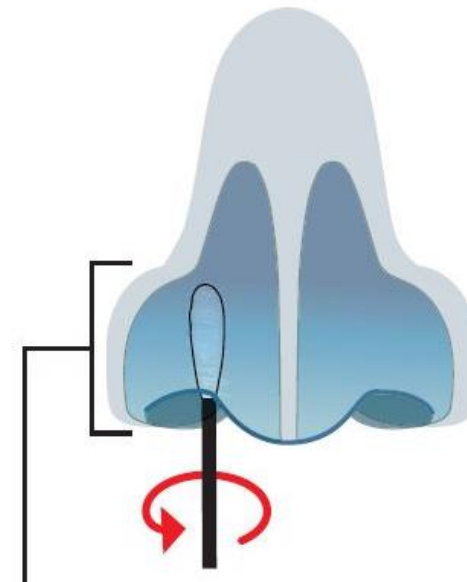
1. Insert swab in posterior pharynx and tonsillar areas.
2. Rub swab over posterior pharynx and bilateral tonsillar pillars; avoid tongue, teeth, and gums.
3. Using the same swab, insert about 1 cm (0.5 in) inside nares.\*
4. Rotate swab and leave in place for 10-15 seconds.
5. Using the same swab, repeat for the other nostril.
6. Immediately place in sterile tube containing transport medium.

\*Swab insertion distance will differ for paediatric patients.

Steps 1-2



Steps 3-5



Ontario 

Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Oropharyngeal/throat combined with anterior nares/nostril [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 Dec 07]. Available from: <https://www.publichealthontario.ca/-/media/documents/lab/respiratory-throat-nasal-collection-instructions.pdf?la=en>

# How to collect a combined throat and nasal specimen



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). How to collect a combined throat and nasal specimen for COVID-19 testing [video recording on the Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 Dec 07]. 2 min. Available from: [https://www.youtube.com/watch?v=nZ5ARMLiQ4A&feature=emb\\_title](https://www.youtube.com/watch?v=nZ5ARMLiQ4A&feature=emb_title)

# Completion of the requisition

Romy Olsha, Vaccine Effectiveness Coordinator, PHO



# Types of COVID-19 requisition form

## Outbreak COVID-19 Testing

## Routine COVID-19 Screen Testing

Make sure to use the current version of the Public Health Ontario's COVID-19 test requisition:

<https://www.publichealthontario.ca/-/media/documents/lab/2019-ncov-test-requisition.pdf?la=en>

Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). COVID-19 virus test requisition [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 Dec 07]. Available from: <https://www.publichealthontario.ca/-/media/documents/lab/2019-ncov-test-requisition.pdf?la=en>



# Outbreak number

Number Identification	Outbreak Number
Number provided by	Health Unit
Number format	<p><b>XXXX-YYYY-#####</b></p> <p>XXXX - PHU code            YYYY – year when OB was declared            ##### – sequential number for this episode</p>
Used for	Outbreaks only, as directed by the HU
Validity of number	<p>For the duration of the active OB as per PHU instruction</p> <p>Do not re-use number after OB is over</p>
Who to swab	Resident and Staff affected by the outbreak
Tests ordered	<p>COVID-19 and Respiratory viruses if required*</p> <p>*Up to 4 symptomatic patients per outbreak</p>

- Outbreak numbers are critical for specimen prioritization (shorten turnaround time) and provincial surveillance work.
- Proper use of outbreak numbers is helpful in clinical as well as data management.
- Inappropriately using outbreak numbers for non-outbreak specimens overloads the testing system.

# Outbreak specimen prioritization

Prioritization	Outbreak
Use coloured requisition	<b>YES</b> , green preferred
Mark transport bag with colored tag	<b>YES</b> , use template in OB Testing Protocol
Send in separate bag	<b>YES</b> , do not mix with non-OB
Send directly to testing lab	<b>YES</b> , use taxi or on-demand courier

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Protocol: respiratory outbreak testing prioritization [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 Dec 07]. Available from: <https://www.publichealthontario.ca/-/media/documents/lab/respiratory-outbreak-testing-prioritization-protocol.pdf?la=en>

# Outbreak COVID-19 Testing: Colour-paper Requisition

Use for OUTBREAK specimens only, to facilitate prioritization.

Public Health Ontario / Sante publique Ontario

## COVID-19 Virus Test Requisition

For laboratory use only  
Date received (yyyy/mm/dd): PHOL No.:

**ALL Sections of this form must be completed at every visit**

**1 - Submitter Lab Number (if applicable):**  
Ordering Clinician (required)  
Surname, First Name:  
OHIP/CPSO/Prof. License No.:  
Name of clinic/facility/health unit:  
Address: Postal code:  
Phone: Fax:

Hospital Lab (for entry into LIS)  
Hospital Name:  
Address (if different from ordering clinician):  
Postal Code:  
Phone: Fax:

Other Authorized Health Care Provider:  
Surname, First name:  
OHIP/CPSO/Prof. License No. :  
Name of clinic/facility/health unit:  
Address: Postal code:  
Phone: Fax:

**2 - Patient Information**  
Health Card No.: Medical Record No.:  
Last Name:  
First Name:  
Date of Birth (yyyy/mm/dd): Sex:  M  F  
Address:  
Postal Code: Patient Phone No.:

**3 - Travel History**  
Travel to:  
Date of Travel (yyyy/mm/dd): Date of Return (yyyy/mm/dd):

**4 - Exposure History**  
Exposure to probable, or confirmed case?  Yes  No  
Exposure details:  
Date of symptom onset of contact (yyyy/mm/dd):

**5 - Test(s) Requested**  
 COVID-19 Virus  Respiratory viruses (Check ONLY if required for hospitalized patient or those in a group setting).

**6 - Specimen Type (check all that apply)**  
Specimen Collection Date (yyyy/mm/dd): (required)  
 NPS  Throat Swab  Anterior Nasal (Nose)  
 Deep or Mid-turbinate Nasal Swab  Throat + Nasal  Other (Specify):  
 BAL  Other (Specify):  
 Saliva (Swish & Gargle)  Saliva (Neat)

**7 - Patient Setting / Type**  
 Assessment Centre  Family doctor / clinic  Outpatient / ER not admitted  
Only if applicable, indicate the group:  
 ER - to be hospitalized  Institution / all group living settings Facility Name:  
 Healthcare worker  
 Inpatient (Hospitalized)  Confirmation (for use ONLY by a COVID testing lab). Enter your result (NEG / POS / or IND):  
 Inpatient (ICU / CCU)  Other (Specify):  
 Remote Community  
 Unhoused / Shelter  
 Deceased / Autopsy

**8 - Clinical Information**  
 Asymptomatic  Symptomatic  
Date of symptom onset (yyyy/mm/dd):  
 Fever / temperature, if known:  Pneumonia  
 Pregnant / also check if in labour:  Cough  
 Other (Specify):  Sore Throat

**CONFIDENTIAL WHEN COMPLETED**  
The personal health information is collected under the authority of the Personal Health Information Protection Act, s.26(1)(c)(ii) for the purpose of clinical laboratory testing. If you have questions about the collection of this personal health information please contact the PHO Laboratory Manager of Customer Service at 416-235-8558 or toll free 1-877-604-4567. Form No. F-SD-SCG-4000 (10/23).

Ontario

Enter the **Outbreak** number you were given by the PHU, exactly as provided

If required, check "Respiratory viruses" for up to 4 *symptomatic* patients per outbreak

Indicate the date of collection

Indicate if patient is Asymptomatic or Symptomatic. Indicate symptoms, if applicable.

Check if patient is a **resident**

Check if patient is **staff, volunteer, or HCW**



# Outbreak COVID-19 Testing: Colour-paper transport bag tag

- Use for OUTBREAK specimens only, to facilitate prioritization
- Use this tag to mark a transportation bag as containing outbreak specimens

## Transportation bag tag template

Print on green paper or another paper colour other than white. Fill-in Outbreak Number details and fold on dashed lines. Insert in clear pocket of transport bag.

### Outbreak Specimens:

XXXX-YYYY-#####

OB#  -  -

# Outbreak vs. investigation number

Number Identification	Outbreak Number	Investigation Number (for screen testing)
Number provided by	Health Unit	Ontario Health
Number format	<p><b>XXXX-YYYY-#####</b>                      XXXX - PHU code                      YYYY – Year when OB was declared                      ##### – sequential number for this episode</p>	<p><b>LTS-NNNN</b> (Long-Term Care STAFF)  <b>LTR-NNNN</b> (Long-Term Care RESIDENT)  <b>RHS-NNNN</b> (Retirement Home STAFF)  <b>RHR-NNNN</b> (Retirement Home RESIDENT)  <b>Other</b> numbers as assigned for the facility</p>
Used for	Outbreaks only, as directed by the HU	Screen testing for routine surveillance
Validity of number	<p>For the duration of the active OB as per PHU instruction                      Do not re-use number after OB is over</p>	Ongoing, can be used repeatedly for the purpose of screen testing
Who to swab	Resident and Staff affected by the outbreak.	Residents and Staff that are not part of an active outbreak.
Tests ordered	<p>COVID-19 and Respiratory viruses if required*                      *Up to 4 <i>symptomatic</i> patients per outbreak</p>	COVID-19 (Respiratory viruses may be ordered if necessary)

# Outbreak specimen prioritization

Prioritization	Outbreak	Screen testing
Use coloured requisition	<b>YES</b> , green preferred	<b>NO</b>
Mark transport bag with colored tag	<b>YES</b> , use template in OB Testing Protocol	<b>NO</b>
Send in separate bag	<b>YES</b> , do not mix with non-OB	<b>Not required</b>
Send directly to testing lab	<b>YES</b> , use special courier if routine courier will introduce delay	<b>Not required</b> , use routine courier

# Routine COVID-19 Screen Testing: White-paper requisition

Public Health Ontario | Santé publique Ontario

## COVID-19 Virus Test Requisition

For laboratory use only  
Date received (yyyy/mm/dd): PHOL No.:

**ALL Sections of this form must be completed at every visit**

**1 - Submitter Lab Number (if applicable):**  
Ordering Clinician (required)  
Surname, First Name:  
OHIP/CPSO/Prof. License No.:  
Name of clinic/facility/health unit:  
Address: Postal code:  
Phone: Fax:

Hospital Lab (for entry into LIS)  
Hospital Name:  
Address (if different from ordering clinician):  
Postal Code:  
Phone: Fax:

Other Authorized Health Care Provider:  
Surname, First name:  
OHIP/CPSO/Prof. License No.:  
Name of clinic/facility/health unit:  
Address: Postal code:  
Phone: Fax:

**2 - Patient Information**  
Health Card No.: Medical Record No.:  
Last Name:  
First Name:  
Date of Birth (yyyy/mm/dd): Sex:  M  F  
Address:  
Postal Code: Patient Phone No.:

**3 - Travel History**  
Travel to:  
Date of Travel (yyyy/mm/dd): Date of Return (yyyy/mm/dd):

**4 - Exposure History**  
Exposure to probable, or confirmed case?  Yes  No  
Exposure details:  
Date of symptom onset of contact (yyyy/mm/dd):

**5 - Test(s) Requested**  
 COVID-19 Virus  Respiratory viruses (Check ONLY if required for hospitalized patient or those in a group setting).

**6 - Specimen Type** (check all that apply)  
Specimen Collection Date (yyyy/mm/dd): (required)  
 NPS  Throat Swab  Anterior Nasal (Nose)  
 Deep or Mid-turbinate Nasal Swab  Throat + Nasal  Other (Specify):  
 BAL  Other (Specify):  
 Saliva (Swish & Gargle)  Saliva (Neat)

**7 - Patient Setting / Type**  
 Assessment Centre  Family doctor / clinic  Outpatient / ER not admitted  
Only if applicable, indicate the group:  
 ER - to be hospitalized  Institution / all group living settings  
Facility Name:  
 Healthcare worker  
 Inpatient (Hospitalized)  Confirmation (for use ONLY by a COVID testing lab). Enter your result (NEG / POS / or IND):  
 Inpatient (ICU / CCU)  Other (Specify):  
 Remote Community  Deceased / Autopsy  
 Unhoused / Shelter

**8 - Clinical Information**  
 Asymptomatic  Symptomatic  
Date of symptom onset (yyyy/mm/dd):  
 Fever / temperature, if known:  Pneumonia  
 Pregnant / also check if in labour:  Cough  
 Other (Specify):  Sore Throat

**CONFIDENTIAL WHEN COMPLETED**  
The personal health information is collected under the authority of the Personal Health Information Protection Act, s.36(1)(c)(ii) for the purpose of clinical laboratory testing. If you have questions about the collection of this personal health information please contact the PHO laboratory Manager of Customer Service at 416-235-6556 or toll free 1-877-604-4567. Form No. F-SD-SCG-4000 (10/23).

Ontario

Check if patient is a **resident**

Check if patient is **staff, volunteer, or HCW**

Enter your assigned investigation number exactly as provided.

Indicate the date of collection

Indicate if patient is Asymptomatic or Symptomatic. Indicate symptoms, if applicable.

## Important to note ...

The submitter named on the requisition must be registered for your laboratory's autofax service

**DO NOT** photocopy the following information on the requisition:

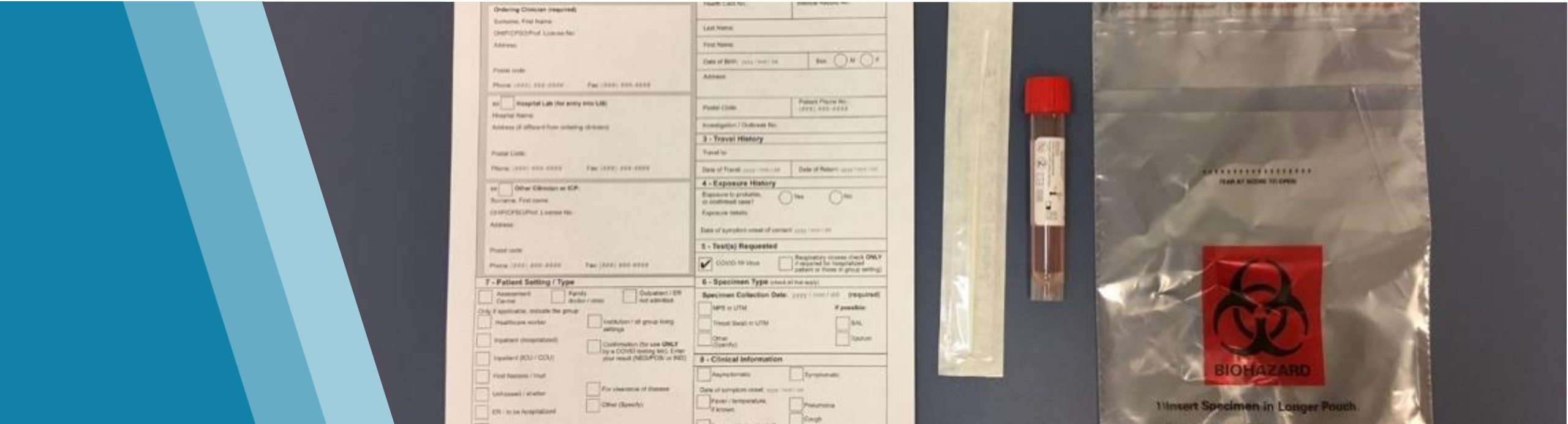
- Patient information (e.g. name, DOB, HCN)
- Specimen collection date – Make sure the correct date is written at the time of collection for efficient specimen management
- Symptoms – indicate the symptoms of the individual being swabbed to assist with surveillance
- Respiratory viruses test (check-mark) – for multiple requests only 4 will be tested

**OK** to photocopy:

- Submitter and cc HCP's name, address and fax number if appropriate
- Outbreak or Investigation number as appropriate - helps making sure the number is accurate and clear

# Packaging of COVID-19 samples for ground transportation

Aurel Tamburri, Operations Director, PHO



## Limitations

These packaging instructions are:

- valid for the duration of the *Temporary Certificate TU-0764* (Consult with Transport Canada for expiry date).
- valid for ground transportation between two points within Canada only.
- suggested guidelines only. Always refer to the latest edition of the *Transportation of Dangerous Goods Regulations* and requirements listed in the *Temporary Certificate TU-0764*.

Transport Canada. Temporary certificate TU 0764 – test samples for COVID-19: temporary certificate pursuant to Subsection 31(2.1) of the Transportation of Dangerous Goods Act, 1992 [Internet]. Ottawa, ON: Government of Canada; 2020 [modified 2020 Nov 27; cited 2020 Dec 07]. Available from: <https://tc.canada.ca/en/dangerous-goods/temporary-certificates/temporary-certificate-tu-0764-test-samples-covid-19>



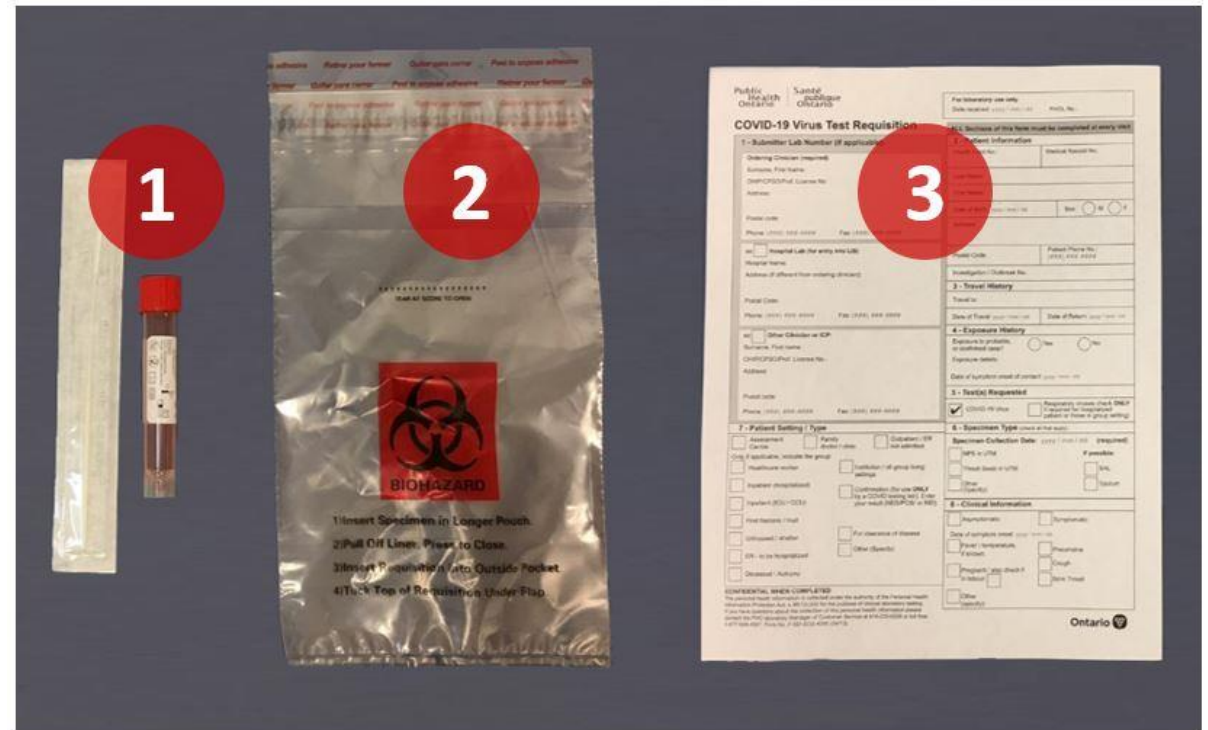
# Package contents: Provided by Ontario Health distribution

1. Primary receptacle and swab
2. Secondary inner packaging (Bio-Bag)
3. COVID-19 Virus Test Requisition sheet

To obtain COVID-19 swab kits, please submit your order via the following Ontario Health link:

<https://ehealthontario.on.ca/en/health-care-professionals/ppe-intake?a=ppe-intake>

If you have any further inquiries, please reach out to your respective Ontario Health regional team contact.



Ontario Health. Critical personal protective equipment (PPE) and swab kit: intake form [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 Dec 07]. Available from: <https://ehealthontario.on.ca/en/health-care-professionals/ppe-intake?a=ppe-intake>



## Package contents: Provided by the local LTC facility

4. Ice pack (use of ice pack is preferred to align with best practices)
5. Absorbent material (paper towel)
6. Additional packaging (sealable plastic bag)
7. Outer packaging (cardboard box)
8. Printable Label Sheet (PDF)

These are readily available items that will need to be procured by the local long-term care home.

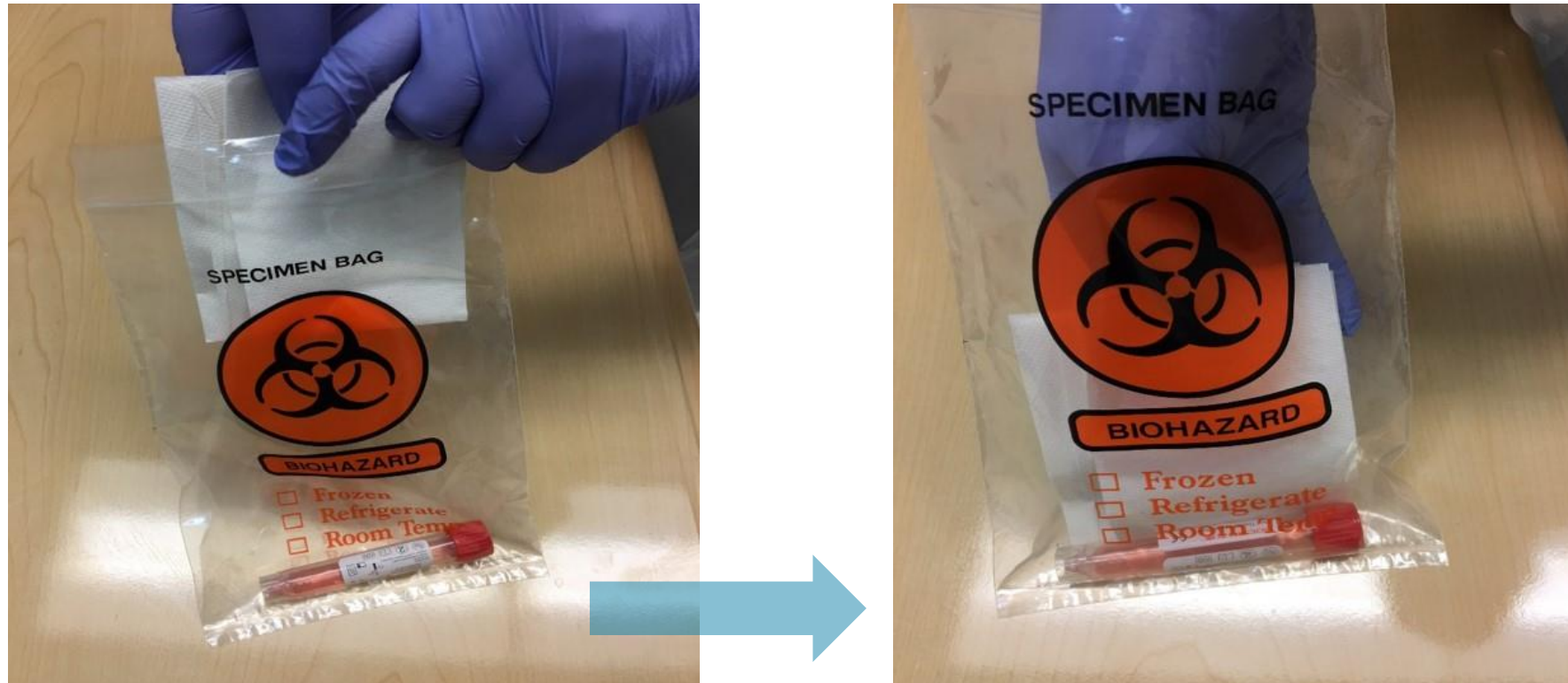


## Step 1: Place primary receptacle containing test sample in secondary inner packaging



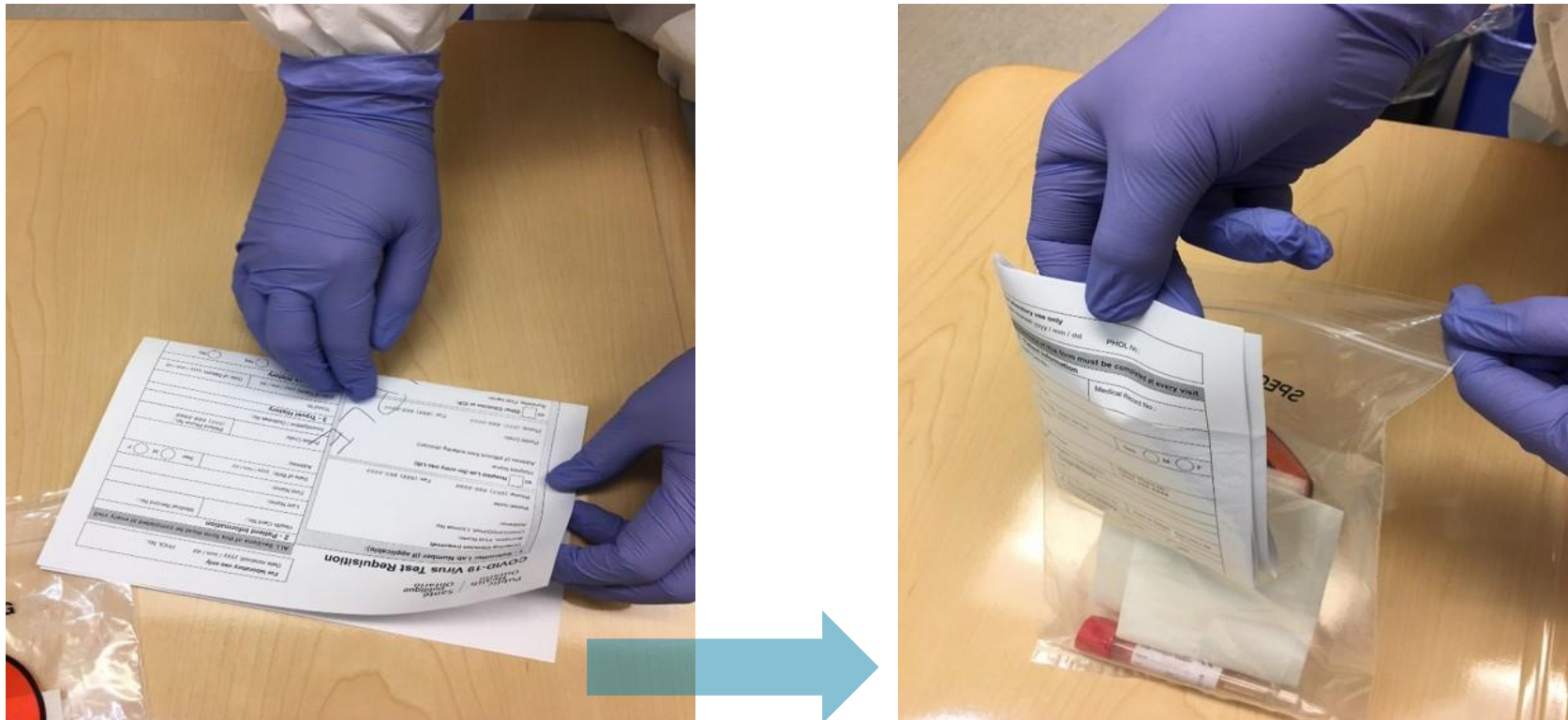
Ensure primary receptacle (sample tube) is tightly closed

## Step 2: Place absorbent material between the primary receptacle and the secondary inner packaging



The absorbent material must be in sufficient quantity to absorb the entire content of the primary receptacle (paper towel can be used).

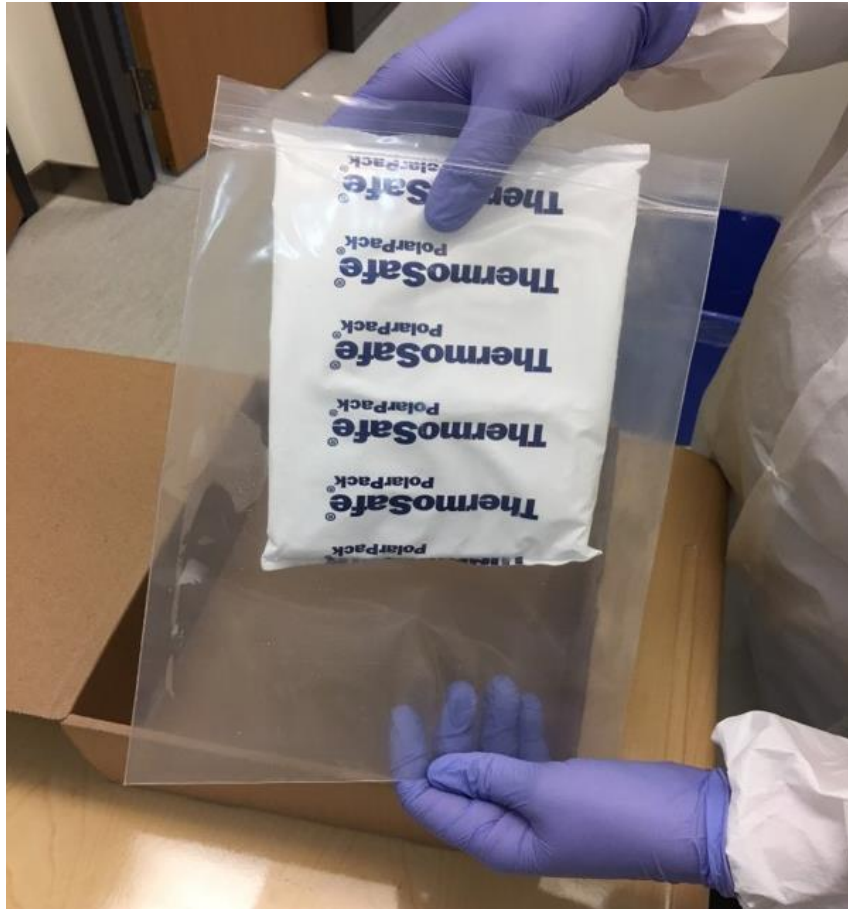
## Step 3: Insert *COVID-19 Virus Test Requisition* sheet into the pouch of secondary inner packaging



If secondary inner package does not have a pocket for sheet insert, then physically attach sheet onto secondary inner package.

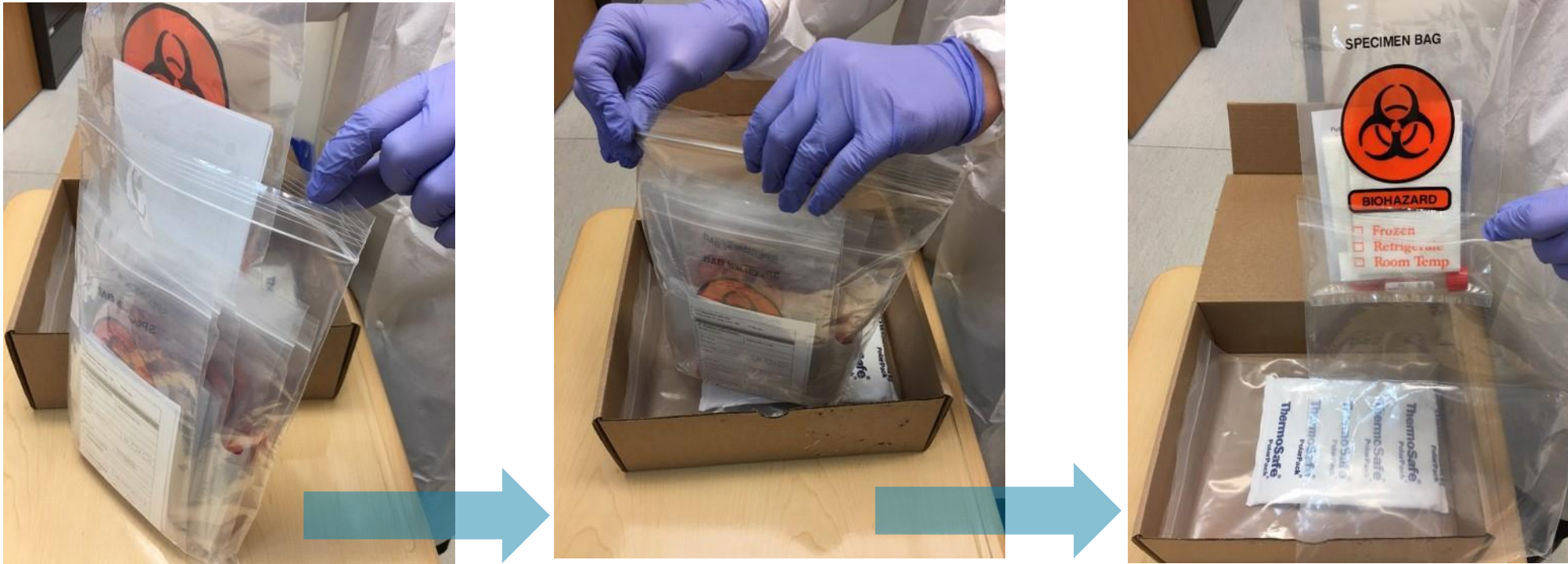


## Recommended: Place ice pack in outer packaging



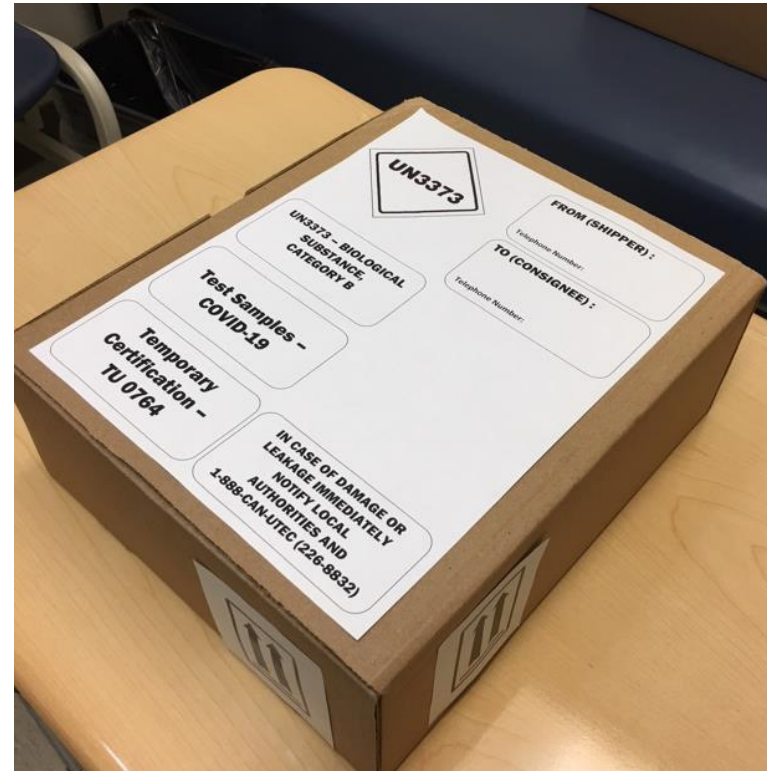
- For long distance transportation, an ice pack can be included to preserve specimen.
- If an ice pack is used, ensure it is placed in a sealable plastic bag to prevent wetness due to condensation.

## Step 4: Insert secondary inner packages into additional packaging (sealable plastic bag) and place in outer package (ridged cardboard box)

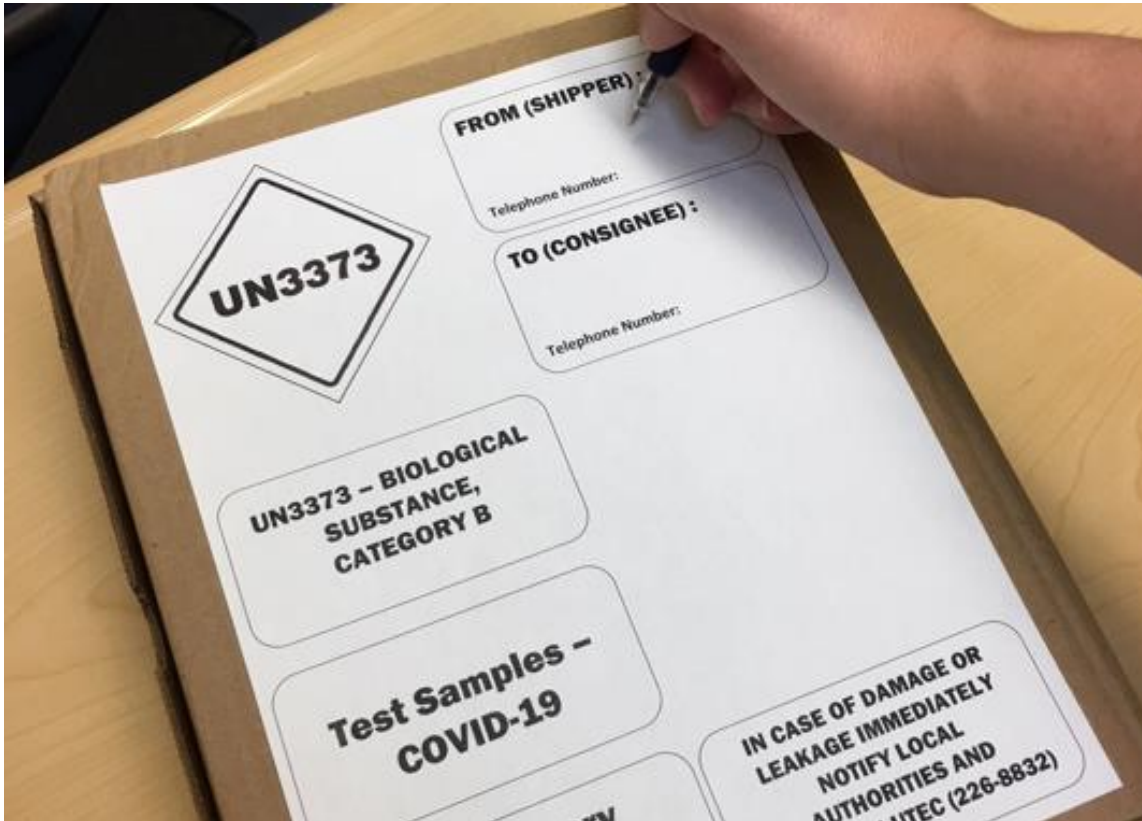


Each outer package (ridged cardboard box) should be limited to 800 test samples (4 L total volume)

# Step 5: Print PDF of labels and place on sealed outer package (tape sheet and arrows on box)



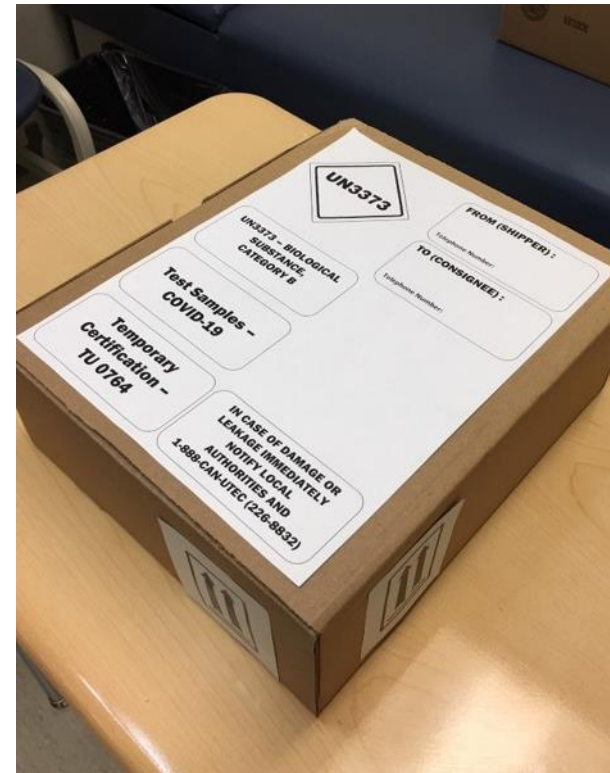
## Step 6: Complete the address (To/From)



Complete the address and telephone number for both *to:* and *from:* label boxes.

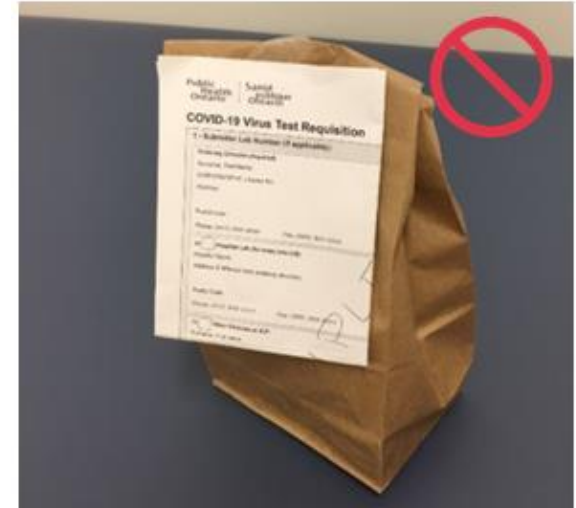
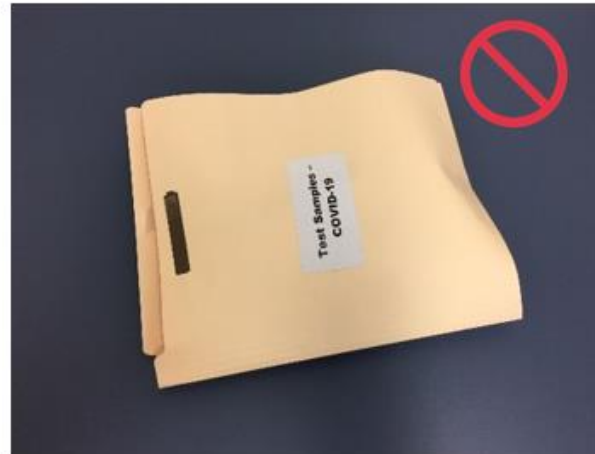
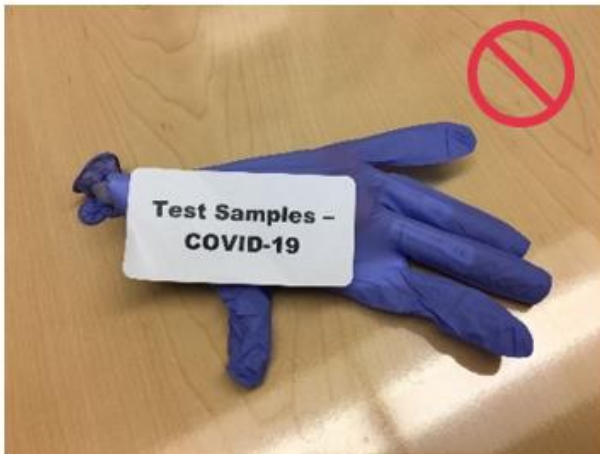
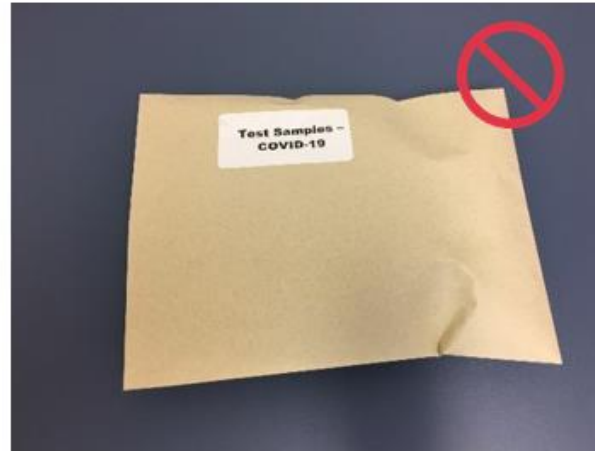
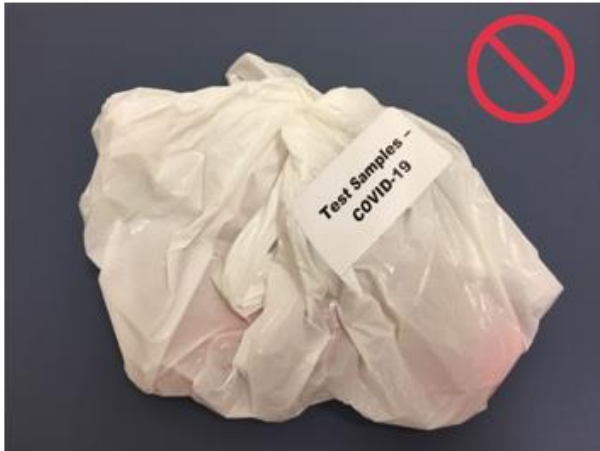


# Package is ready to be transported



Complete the address and telephone number

# Unacceptable packaging



## Do not use:

- grocery bags
- garbage bags
- paper bags
- envelopes
- file folders
- gloves

## Unacceptable packaging risks

- Samples could get lost or be delayed for testing
- Risk to public if sample leaks
- Risk of fine by Transport Canada

## Step 7: Arrange for transportation

- Outbreak specimens should be sent via taxi or on-demand courier
- Routine screen-testing specimens should be sent same day

## Key Contacts

- Customer Service Centre: [CustomerServiceCente@oahpp.ca](mailto:CustomerServiceCente@oahpp.ca)
- Ontario Health Issues Management Team: [COVID-19.Diagnostics@ontariohealth.ca](mailto:COVID-19.Diagnostics@ontariohealth.ca)

## Resources

- Ontario Agency for Health Protection and Promotion (Public Health Ontario). Coronavirus disease 2019 (COVID-19) – PCR [Internet]. Toronto, ON: Queen’s Printer for Ontario; 2020 [cited 2020 Dec 07]. Available from: <https://www.publichealthontario.ca/en/laboratory-services/test-information-index/covid-19>
- Ontario Agency for Health Protection and Promotion (Public Health Ontario). COVID-19 PCR collection kits [Internet]. Toronto, ON: Queen’s Printer for Ontario; 2020 [cited 2020 Dec 07]. Available from: <https://www.publichealthontario.ca/en/laboratory-services/covid-19-pcr-collection-kits>
- Ontario Agency for Health Protection and Promotion (Public Health Ontario). COVID-19 polymerase chain reaction (PCR) testing swabs: preferred specimen collection methods. Toronto, ON: Queen’s Printer for Ontario; 2020. Available from: <https://www.publichealthontario.ca/-/media/documents/lab/covid-19-preferred-swab-collection-methods.pdf?la=en>

## Resources - continued

- Transport Canada. Temporary certificates [Internet]. Ottawa, ON: Government of Canada; 2020 [modified 2020 Nov 27; cited 2020 Dec 07]. Available from: <https://tc.canada.ca/en/dangerous-goods/temporary-certificates>
- Public Health Ontario: To obtain COVID-19 swab kits, please submit your order via the following Ontario Health link: <https://ehealthontario.on.ca/en/health-care-professionals/ppe-intake?a=ppe-intake>

## Additional resources

- On Friday, long-term care homes will be emailed:
  - Copy of this webinar deck
  - Link to the recording of this webinar
  - FAQs and additional resources, summarizing information from this webinar
  - Additional resources supporting testing policy change (e.g. information on showing proof of testing)



**For More Information About This Presentation, Contact:**

[CustomerServiceCente@oahpp.ca](mailto:CustomerServiceCente@oahpp.ca)

Public Health Ontario keeps Ontarians safe and healthy. Find out more at  
**PublicHealthOntario.ca**