

COVID-19: Sample collection procedure

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May 2020

COVID 19 Testing



Swabbing Preparation











Clarify if Swabs are Going to QUEST or to IDPH Lab Locations

Revision 4/15/20



COVID-19 specimen collection guidelines

Quest specimen requirements and acceptable supplies for SARS-CoV-RNA (COVID-19), Qualitative NAAT (test code 39448)

Illinois Department of Public Health Division of Laboratories 2121 W. Taylor Street Chicago, IL 60612 312-793-4760 Illinois Department of Public Health Division of Laboratories 825 N. Rutledge Street Springfield, IL 62702 217-782-6562 Illinois Department of Public Health Division of Laboratories 1155 South Oakland Avenue Carbondale, IL 62901 618-457-5131





Swabbing Preparation: Team approach

- Nurses
- Recorder



Swabbing Preparation: Set Up Cart

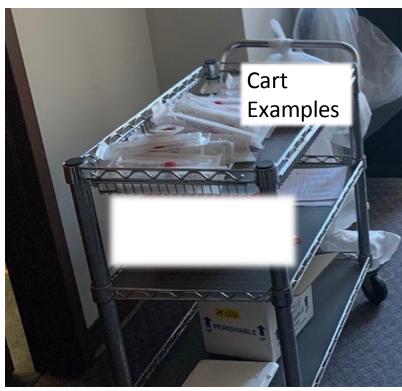
A cart to transport specimen collection supplies (one cart per team):

- One trash bag/cart
- Recommended PPE (e.g., gown, gloves, mask, eye protection)
- Alcohol based hand sanitizer
- Disinfectant wipes effective against SARS-CoV-2
- Testing supplies

A staging room (e.g., conference room) to convene before and after specimen collection

A separate area or room where staff can be tested

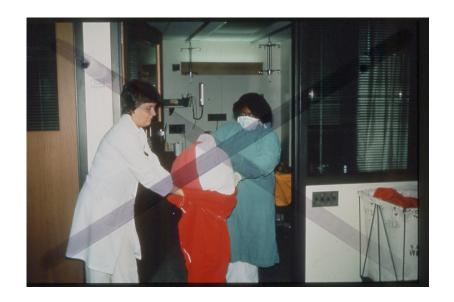






CDC Isolation Precautions Guidelines

- Do Not require or recommend for patients/residents on any precaution category
 - No special bag or process for linen
 - No double bagging trash or linen unless bag torn or soiled
 - No red bag collection of regular waste (includes non-bloody isolation trash)
 - No double gloving
 - No disposable dishes



Slide Source: *Karen K. Hoffmann, RN, MS, CIC*



COVID-19 Personal Protective Equipment (PPE) for Healthcare Personnel

Preferred PPE – Use N95 or Higher Respirator

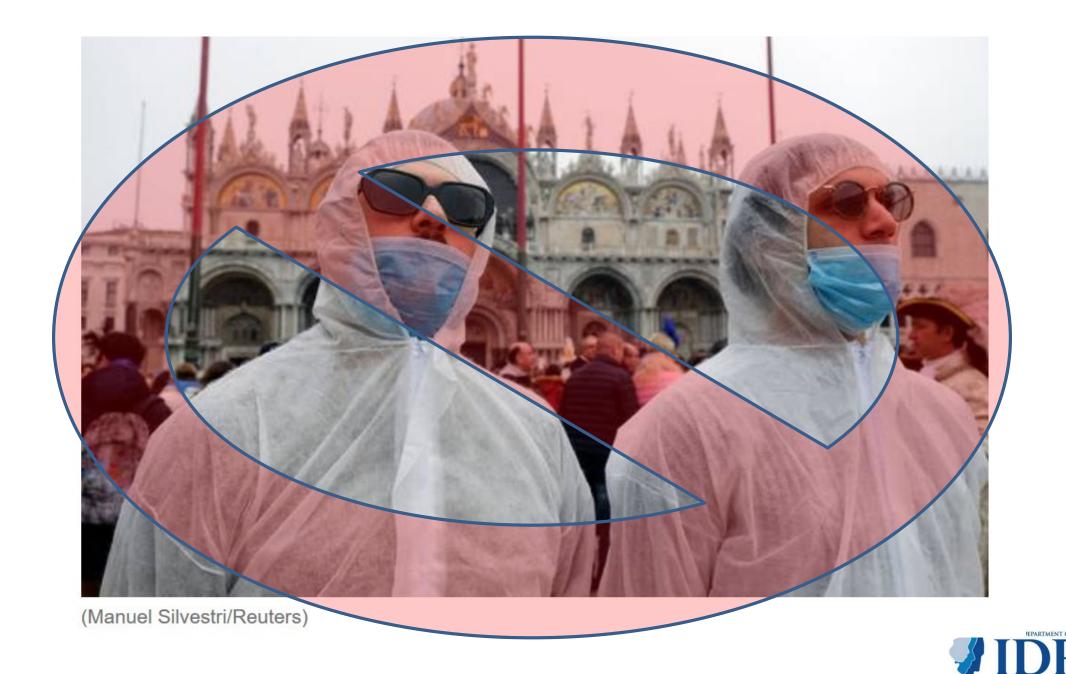


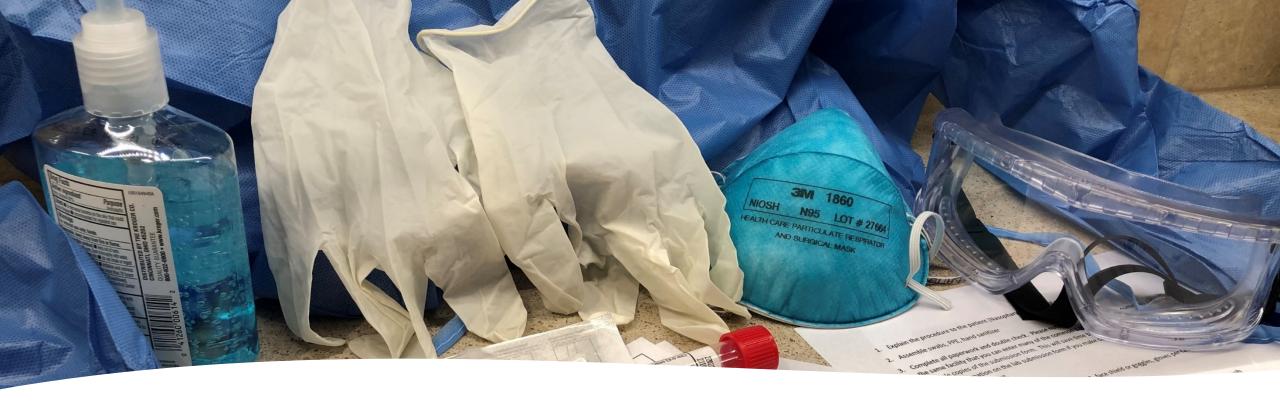
Acceptable Alternative PPE – Use Facemask











Swabbing Steps 1-2

- 1. Explain the procedure to the patient (Nasopharyngeal or Nasal swab)
- 2. Assemble swabs, PPE, hand sanitizer



Swabbing Step 3

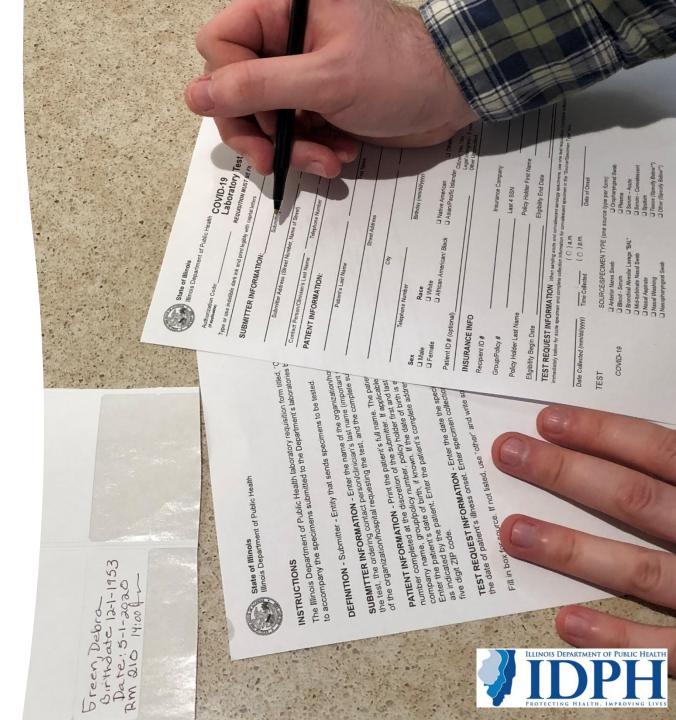
3. Recorder completes all paperwork and double checks.

If you are sampling numerous patients from the same facility

- enter many of the common data elements electronically
- print multiple copies of the submission form.

Saves time

Only need to complete patient specific information on the lab submission form if you make copies that have much of the information completed in advance.



Test Requisition Form

- Must be submitted with each sample.
- Each lab has its own test requisition form. Contact the lab that will be doing your testing for the form.
- Following are examples from the IDPH Lab and Quest.



	State of Illinois Illinois Department of Public Health
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COVID-19

Laboratory Specimen Number	
(FOR PUBLIC HEALTH USE ONL)	Y

Authorization Code:(Fapplicable)				y Test Requisitio BEFILLED OUT COMPLETE	I (EOE	Laboratory Specimen Number (FOR PUBLIC HEALTH USE ONLY)			
Type or use indelible dark ink	and print legit	Outbr	eak #:						
SUBMITTER INFORMA	ATION:	Submitting Institu	tion						
Submitter Address	(Street Numb	er, Name of Street)		City		Sta	ate	ZIP Code	
Contact Person/Clinician's L	ast Name	Telephone Numb	FAX	_	E-mail Address				
PATIENT INFORMATIO	ON:								
Patient's L	ast Name			First Name		Midd	lle Name		
		Street Address				Apartme	nt/Suite Nur	mber	
	С	ty			State		ZIP	Code	
Telephone Nur	mber	E	Birthda	y (mm/dd/yyyy)	Age				
□ Male	lace I White I African Am			ve American 🗆 Oti n/Pacific Islander	ner/Unknown		Ethnicit □ Hispa □ Non-H	nic	
Patient ID # (optional)									
INSURANCE INFO									
Recipient ID#			_	Insurance Company					
Group/Policy#				Social Security Number					
Policy Holder Last Name				Policy Holder First Name					
Eligibility Begin Date				Eligibility End Date					
		ete collection information (O) a.n	for cor n.	alescent serology specimens, use or nvalescent specimen in the "Source!			tion information	on	
Date Collected (mm/dd/yyyy)	Time Col	() p.n lected	n.	Date of Onset					
TEST SOURCE/SPECIMEN TYPE (on: Anterior Nares Swab COVID-19 Blood - Serum Bronchial Alveolar Lavage "BAL"				 □ Oropharyngeal Swal □ Plasma □ Serum – Acute 					
	□ Nasai A □ Nasai W			☐ Serum - Convalesce ☐ Sputum ☐ Tissue (Specify Belo	W**)				

If using the IDPH Laboratory, the form is available at:

http://dph.illinois.gov/sites/default/fil es/forms/idph-covid-laboratory-testrequisition 20200521.pdf.



Authorization Code:	nent of Public Health COVID-19 Laborato	ry Test Requisition	Laboratory Specimen Num! (FOR PUBLIC HEALTH USE O	
SUBMITTER INFORM	ATION: Long Term Submitting Institution	Care Facility		
123 M	able St.	Sprinafield	IL 62	704
Dr. James S Contact Person/Clinician's	(Street Number, Name of Street) MiHh 217-555-123 ast Name Telephone Number	4 217-555-5678 FAX	State ZIP (LTCF @ vahoo. Col E-mail Address	20de
PATIENT INFORMATION	ON:			
Specimen		<u>John</u>	M	
246	Douglas St.	First Name	Apt. C	
So	rina field	TI	Apartment/Suite Number	<u></u>
	City	1 - 1	State ZIP Code	9
217 - 555 Telephone Nu	1201	<u>/27/196</u> 8 <u>5</u>	ge	
Sex Male Female Patient ID # (optional)		ive American Other/Uni an/Pacific Islander	Ethnicity	nic
INSURANCE INFO				
Recipient ID#	12345	Insurance Company He	alth Insurance !	Inc.
Group/Policy #	94678	Social Security Number 12	3-45-6789	
Policy Holder Last Name	Specimen	Policy Holder First Name	John	
Eligibility Begin Date	4-27-2018	Eligibility End Date	-27-2021	
TEST REQUEST INFO immediately below for acute spec	RMATION When sending acute and com- timen and complete collection information for co	valescent serology specimens, use one test re privalescent specimen in the "Source/Specime	quisition. Complete collection information	
05/28/2020 Date Collected (mm/dd/yyyy)	3:15 (O)a.m.	05/26/2020 Date of Onset	?	
TEST	SOURCE/SPECIMEN TYPE (or			
COVID-19	☐ Anterior Nares Swab ☐ Blood - Serum ☐ Bronchial Alveolar Lavage "BAL" ☐ Mid-turbinate Nasal Swab ☐ Nasal Aspirate ☐ Nasal Washing ☐ Nasopharyngeal Swab	☐ Oropharyngeal Swab ☐ Plasma ☐ Serum - Acute ☐ Serum - Convalescent ☐ Sputum ☐ Tissue (Specify Below**) ☐ Other (Specify Below**)		



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	ACCOUNT #:			ON X	and app	Service Cointment	t sched	uling		PRINT NAME OF INSURED/RESPONSIBLE PARTY (LAST, FIRST, MIDDLE) - IF OTHER THAN PATIENT	0
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0	NON-PHYSICIAN NAME PROVIDER: Fax Results to: ()		I.D.#		1111		Medicare Limited Coverage Tests	@: F: 8: B:	May not be covered for the reported diagnosis. Has prescribed frequency rules for coverage. A test or service performed with research/experimental kit. Has both diagnosis and frequency-related coverage limitations. ICD Codes (enter all that apply)	0
	In I have results to: (_ [

Note: Quest uses an online system for requisitions. This form is for illustrative purposes.



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FOLD								FOL
HERE	PANEL COMPONENTS ON BACK		Reactive Protein CRP S	@ 571 Iron, Total	S	6448 UA, Dipstick		
$\overline{}$	ORGAN / DISEASE PANELS		27.29 S	593 LDH	S		w/Reflex Microscopic U	
\cup	34392 Electrolyte Panel S	@ 29256 CA		@ 599 Lead (B)	TN		te (Dipstick & Microscopic) U	
	10256 Hepatic Function Panel S		cium S	615 LH	S	3020 UA, Comple		O
	10165 Basic Metabolic Panel w/eGFR S		rdio CRP S P Ab IaG S	606 Lipase	S	294 Urea Nitrog		· 😇
\sim		@ 978 CEA			e Ab w/Reflex to Blot (IgG, IgM) S	905 Uric Acid	S	<u> </u>
\mathcal{O}	10231 Comp Metabolic Panel w/eGFR S	=	olesterol, Total S	622 Magnesiu		916 Valproic Aci		
	B 7600 Lipid Panel (Fasting Specimen) S		Total S	_	min, Random Urine w/Creat		ster Virus Ab (IgG) S /Folic Acid S	
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\circ	OTHERTESTS		pylori Urea Breath Test HB G, Serum, Qual S		By Mod West L	394 Culture, The		SPE
111	7788 ABO Group & Rh Type Y		G, Serum, Quant S		ne, Total, LC/MS/MS SR	,	oat"	¦ĕп
	@ 237 AFP Tumor Marker S	=	moglobin A1c L	873 Testostero			ne, Routine*(Inc. Indwelling Cath.)	ECIAL
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\smile	795 Antibody Scr, RBC w/Reflex ID Y		mocysteine, Cardiovascular S	859 T-3, Total	S	10108 Culture, Sto	ool, Shiga toxins w/Reflex)*	, o
쪼	822 AST S	561 Insu		B 861 T-3 Uptake		34838 H. pylori A	J, EIA Stool	!
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$\bigcirc \mathbb{Z}$	287 Bilirubin,Total S		r (Total), IBC, % Sat S	B 866 T-4 (Thyrox	kine), Free S	* Additional charge for	ID and Susceptibilities	: (
O	ADDITIONAL TESTS: (INCLUDE COMPLETE TEST NAME	AND ORDER CODE)	 Reflex tests are performed 	at an additional charg	e. Quest Diagnostics.	Diagnostics, the associated logo and all associate Copyright © 2012 Quest Diagnostics Incorporated	ed Quest Diagnostics marks are the trademarks of d. All rights reserved, www.questdiagnostics.com. tive owner. QD203540-QWO-3PT. Revised 11/13.	; ~
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Specimen Labels

- Always label specimens at the time of collection.
- Use a minimum of two patient identifiers on every specimen submitted for testing along with Time and Date of Collection.
 Patient identifiers include Patient Full Legal Name (First and Last) AND Patient Date of Birth (DOB).
- The IDPH Laboratories do not provide labels for the vial. We advise to use the label on the tube (if applicable), chart labels or blank address labels. Other labs may provide labels – check with them to confirm
- Ensure specimen is properly sealed. Specimen may be sealed with parafilm or tape to ensure no leakage during shipment.

Specimen Label - Example







Swabbing Steps 4- 5

4. Perform Hand hygiene

5. Use gown, procedure mask or fit tested N95, face shield or goggles, gloves per facility guidance and risk assessment.

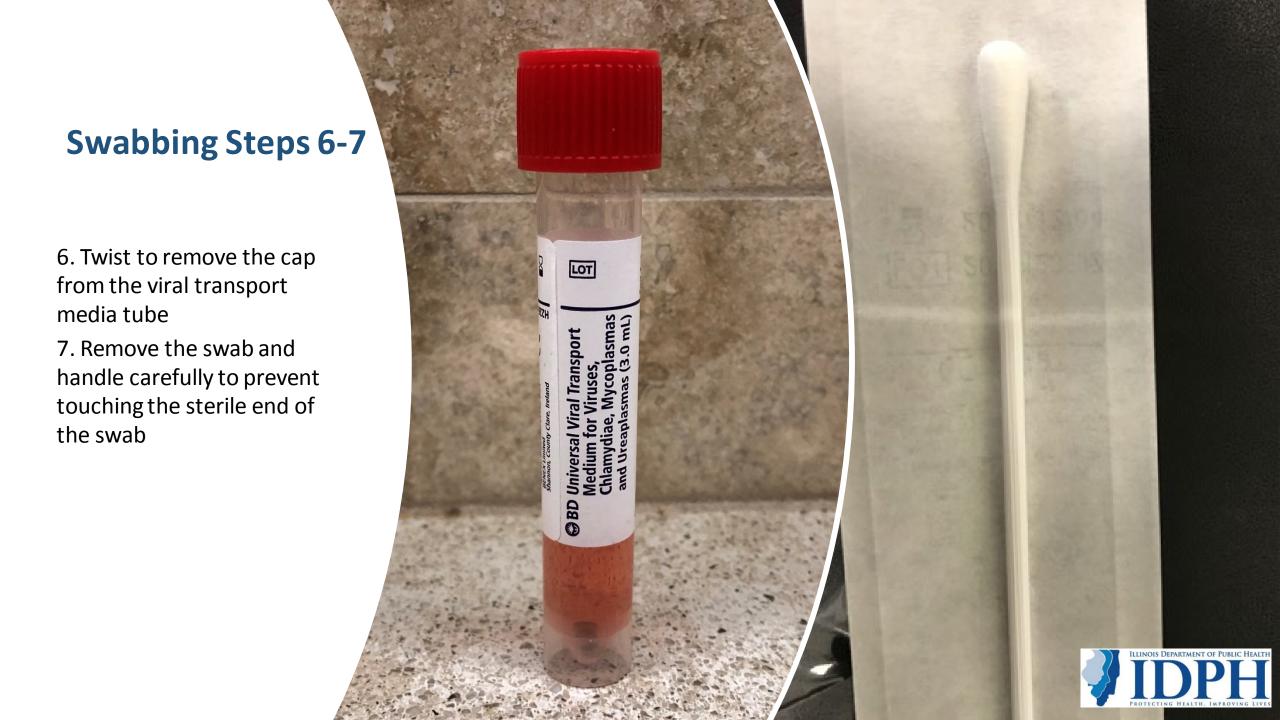


Using PPE

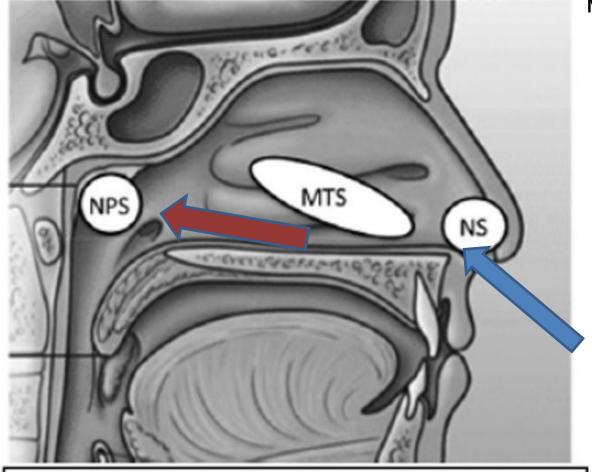
Remember:

- PPE must be donned correctly before entering the patient area (e.g., isolation room, unit if cohorting).
- PPE must remain in place and be worn correctly for the duration of work in potentially contaminated areas. PPE should not be adjusted (e.g., retying gown, adjusting respirator/facemask) during patient care.
- PPE must be removed slowly and deliberately in a sequence that prevents selfcontamination. A step-by-step process should be developed and used during training and patient care.



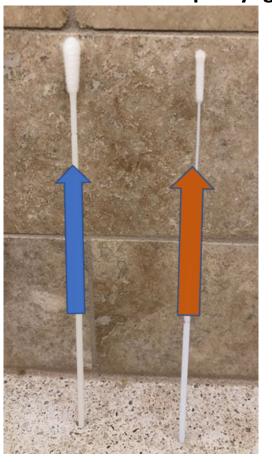


Step 8: Which Swab?



Sampling Locations: NPS, Nasopharyngeal swab; MTS, midturbinate swab; NS, nasal swab. (From Frazee et al., 2018)

NS/Anterior Nares Nasopharyngeal





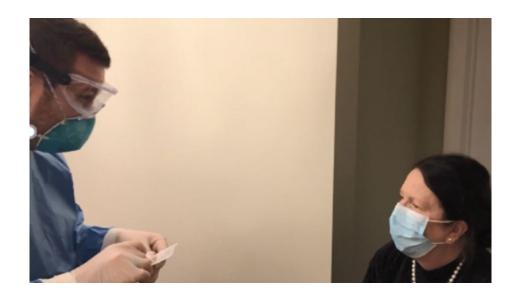
Anterior Nares Swab

Collection instructions: Use a single foam swab for collecting specimens from both nares of a symptomatic patient. Insert foam

Swab into 1 nostril straight back (not upwards).

Once the swab is in place, rotate it in a circular motion 2 times and keep it in place for 15 seconds.

Repeat this step for the second nostril using the same swab. Remove foam swab and insert the swab into an acceptable viral transport medium







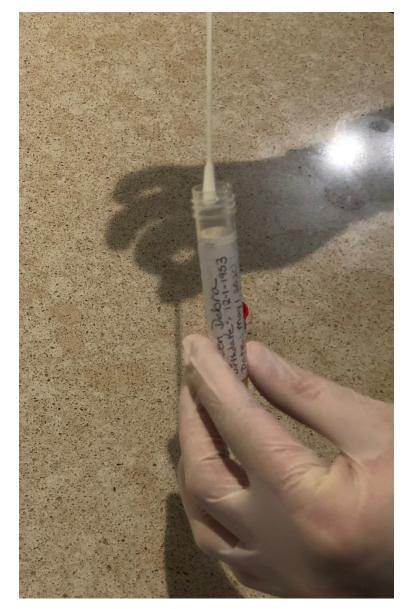
Nasopharyngeal Swab

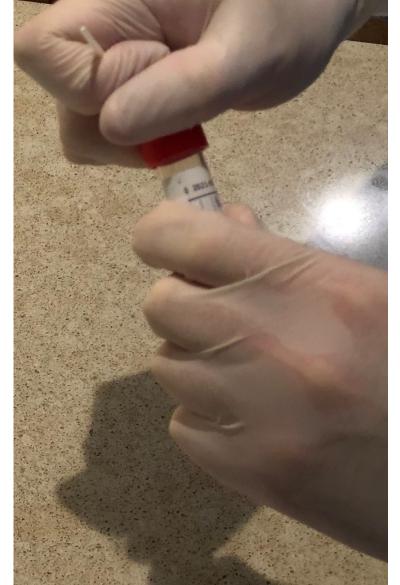




Swabbing Steps 9-12

- 9. Place the swab in the transport media tube
- 10 .Ensure that the swab tip is in the viral transport media
- 11. Bend/cut/snap the applicator stick as appropriate such that the cap can be secured
- 12. Secure the cap on the transport tube tightly to prevent leakage

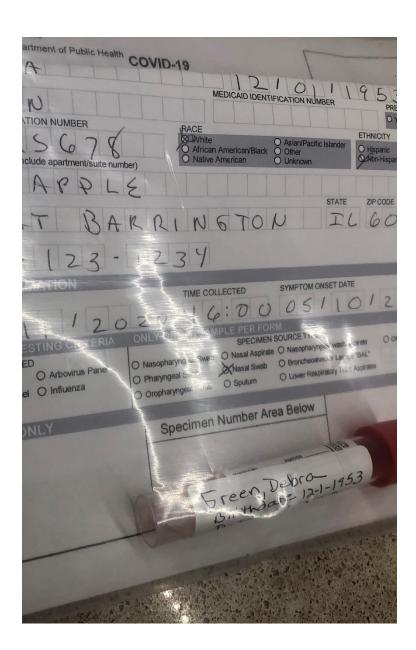






Swabbing Steps 13-14

- 13. Double check name, spelling, and date of birth and place in transport/storage bag with requisition. Place the requisition is the designated pouch.
- 14. Please ensure the specimen and requisition form are kept together one transport bag.

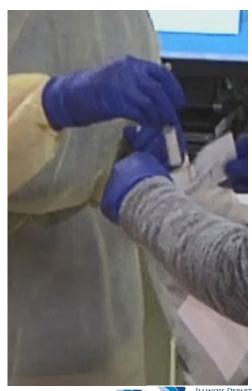






CORRECT







Swabbing Process Step 15

15. Samples require refrigeration!

Store the specimen at 2-8 degrees C. prior to and during shipment to the laboratory.

Please note that all specimens must be received at the lab within 72 hours of collection.

Use frozen ice packs to maintain temperatures during transit. Do not use wet ice.









Remove Gloves and Perform Hand Hygiene









Swabbing Process Steps 16-17

16. Remove gloves, perform hand hygiene, put on fresh gloves, sanitize pen and surfaces.

17. Courier or ship specimens to the laboratory

quickly.





Shipping or Using a Courier

- If shipping, be sure to use overnight shipment.
- For Friday shipments, be sure to designate Saturday delivery or UPS won't deliver even if shipped overnight.
- The safest bet is to drive the samples to the lab.
- They must be kept cold and received at the lab within 72 hours of collection or they will be unsatisfactory for testing.

