

From

The Director General Health Services ,  
Haryana, SwasthyaBhawan, Sector 6, Panchkula.  
E-mail: [dhs.idspdatam@hry.nic.in](mailto:dhs.idspdatam@hry.nic.in)

To

✓ All Civil Surgeons,  
Haryana.

No. 32/3-IDSP/2020- 137-59

Dated: 24/01/2020

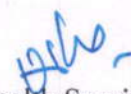

**Subject: Regarding SOP and Reporting Formats for novel Coronavirus outbreak.**

In Continuation of Letter No. No. 32/3-IDSP/2020-14-36 dated 20/01/2020 vide which it was conveyed that there is outbreak of novel Coronavirus in Wuhan city of China. Affected patients have symptoms and radiological signs of bilateral pneumonia and few of them have developed severe acute respiratory illness.

Hence, in this regards, it was desired that necessary precautions are to be taken to prevent the occurrence of these cases in the State. Protocol to be followed by DSUs in this regard is as follows:

- 1) Receive line list/ email of Passengers under observation from SSU/CSU/APHO.
- 2) Immediately trace the Passengers under observation and begin investigation and fill the enclosed format A (Enclosed). On first visit, passenger is to be provided a mask to be put on immediately in case symptoms such as fever and cough develop.
- 3) Passenger will be provided following advice during first visit by Health care provider:
  - a. You will also receive daily calls/visit from health department to ask your health status for the day, kindly cooperate with them.
  - b. You are requested to self-monitor for development of symptoms suggestive of nCoV i.e. Fever and Cough for 28 days from the date of arrival from nCoV affected countries.
  - c. In case you initiation of symptoms (fever and cough), put on the mask immediately, restrict your outdoor movement and contact 24 hours helpline number 011-23978046. The Call operator will tell you whom to contact further. In the meanwhile, keep yourself isolated in your house/room.
- 4) DSU has to ensure daily follow up of Passengers under observation for 28 days starting from date of possible exposure/arrival. Passengers will also be counseled for self-reporting of illness suggestive of 2019-nCoV.
- 5) Information regarding any passenger who travels to another District will be immediately notified to the concerned District Health authority and SSU.
- 6) In case, Passengers under observation develop symptoms suggestive of ARI/ILI, She/he has to be shifted to identify health facility with isolation unit (as transmission pattern of the virus is still unclear). Laboratory guidelines are enclosed.

- 7) Daily follow up of Passengers under observation to be continued for 28 days starting from the date of last exposure/departure.
- 8) If any passenger is not traceable initially or during any duration while being followed up should be immediately notified to SSU/CSU.
- 9) Daily health status to be shared with SSU every day by 12:00 PM.

  
Director Health Services (IDSP),  
O/o Director General Health Services,  
Haryana, Panchkula. 

Endst No. 32/3-IDSP/2020- 160-61

Dated: 24/01/2020

A copy is forwarded to the following for information, please:

1. PS to Worthy Additional Chief Secretary Health, Haryana.
2. PA to Director General Health Services, Haryana.

- Sd -  
Director Health Services (IDSP),  
O/o Director General Health Services,  
Haryana, Panchkula.

**Format A - for surveillance of Passenger for 2019-nCoV (To be filled by District Surveillance Unit and send to SSU daily)**

Full Name:	
Age in years:	
Gender:	
Passport number:	
Complete Address (For Indian passport holders)	
Place of Stay during visit to India (For International tourists)	
Landline number with STD code (In India)	
Mobile number (In India)	
Countries visited in last 14 days	
Date of arrival from 2019-nCoV affected country to India	

Passenger History:

**Clinical details: write 'N' for No & 'Y' for Yes**

Day	Date	Fever	Cough	Day	Date	Fever	Cough
1				15			
2				16			
3				17			
4				18			
5				19			
6				20			
7				21			
8				22			
9				23			
10				24			
11				25			
12				26			
13				27			
14				28			

**In case of any symptoms the passenger should be immediately isolated at designated hospital following standard Infection, control practices.**

Filled by.....

Format B (Linelist of Format A from all DSU to be updated on daily basis by SSU)

NAME OF State:

LINELIST FORMAT FOR REPORTING OF DAILY HEALTH STATUS OF PASSENGERS UNDER OBSERVATION												
Sl.No.	Name	Age	Gender	Address	Phone	District	Country of visit	Date of departure from affected country	Date of receipt of information	Observation started from	Today's Health status	Comments

- New passengers enrolled for observation:
- Cumulative number of Passengers under observation:
- No. of passengers who have completed 28 days observation period:

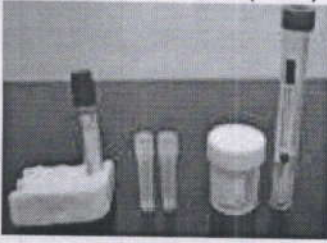

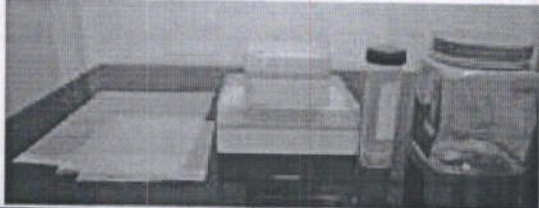

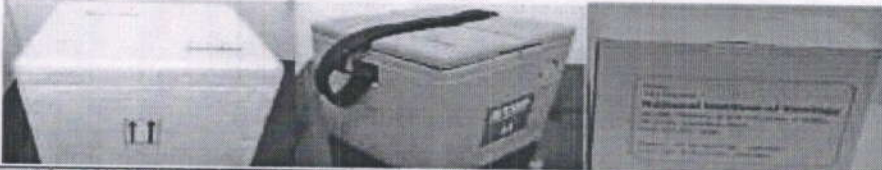

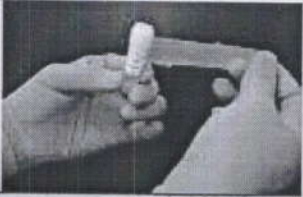
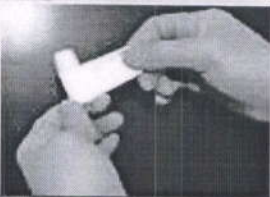
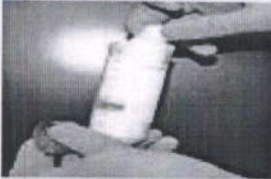
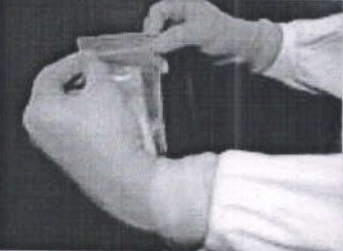
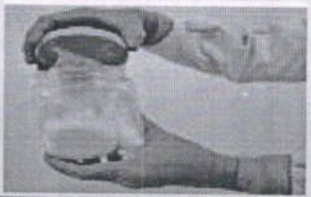


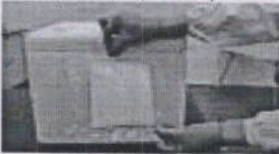




## Specimen Collection, Packaging and Transport Guidelines for 2019 novel Coronavirus (2019-nCoV)

<b>Title: Specimen Collection, Packaging and Transport Guidelines for 2019 Novel Coronavirus (2019-nCoV)</b>	SOP number: ICMR-NIV/2019-nCoV/Specimens_01 Prepared by: Dr. Y.K. Gurav      Date: 19/01/2020 Reviewed by: Dr. V. Potdar      Date: 20/01/2020 Approved by: Dr. P. Abraham      Date: 20/01/2020																																			
<b>Scope:</b> To be used by the Government health authorities/ hospitals/ clinicians/ laboratories planning to collect appropriate clinical samples as indicated for diagnosis of 2019-nCoV.																																				
<b>Purpose:</b> This document describes the information for collection, packaging and transport of clinical specimens to Influenza group at ICMR-National Institute of Virology (NIV), Pune, Maharashtra for diagnosis of 2019 Novel Coronavirus (2019-nCoV)																																				
<b>Responsibilities:</b> <ul style="list-style-type: none"> <li>The clinician should decide necessity for collection of clinical specimens for laboratory testing of 2019-nCoV only after following the case definition as given by the health authorities, Government of India.</li> <li>Appropriate clinical sample need to be collected by laboratory personnel/ health care worker trained in specimen collection in presence of a clinician.</li> <li>By following all biosafety precautions and using personal protective equipment (PPEs), clinical samples need to be sent to the designated laboratory (ICMR-NIV, Pune) by following standard triple packaging.</li> </ul>																																				
<b>Selection of patient:</b> Any person who presents with Severe Acute Respiratory Illness (SARI) AND any one of the following i.e. a history of travel from Wuhan, China in 14 days prior to symptoms onset; disease in healthcare worker working in an environment of SARI patients; unusual or unexpected clinical course, especially sudden deterioration despite appropriate treatment; should be urgently investigated. Updated case definition need to be followed as per MOHFW, Govt of India which is available on the website <a href="http://www.mohfw.gov.in">www.mohfw.gov.in</a>																																				
<b>Specimen collection details:</b> (Adapted from the WHO guidelines on 2019-nCoV):																																				
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;">Specimen type</th> <th style="width: 20%;">Collection materials</th> <th style="width: 10%;">Transport to laboratory</th> <th style="width: 20%;">Storage till testing</th> <th style="width: 35%;">Comment</th> </tr> </thead> <tbody> <tr> <td>Nasopharyngeal and oropharyngeal swab</td> <td>Dacron or polyester flocced swabs*</td> <td>4 °C</td> <td>≤5 days: 4 °C &gt;5 days: -70 °C</td> <td>The nasopharyngeal and oropharyngeal swabs should be placed in the same tube to increase the viral load.</td> </tr> <tr> <td>Bronchoalveolar lavage</td> <td>sterile container*</td> <td>4 °C</td> <td>≤48 hours: 4 °C &gt;48 hours: -70 °C</td> <td>There may be some dilution of pathogen, but still a worthwhile specimen</td> </tr> <tr> <td>Tracheal aspirate, nasopharyngeal aspirate or nasal wash</td> <td>sterile container*</td> <td>4 °C</td> <td>≤48 hours: 4 °C &gt;48 hours: -70 °C</td> <td>Not applicable</td> </tr> <tr> <td>Sputum</td> <td>sterile container</td> <td>4 °C</td> <td>≤48 hours: 4 °C &gt;48 hours: -70 °C</td> <td>Ensure the material is from the lower respiratory tract</td> </tr> <tr> <td>Tissue from biopsy or autopsy including from lung</td> <td>sterile container with saline</td> <td>4 °C</td> <td>≤24 hours: 4 °C &gt;24 hours: -70 °C</td> <td>Autopsy sample collection preferably to be avoided</td> </tr> <tr> <td>Serum (2 samples – acute and convalescent)</td> <td>Serum separator tubes (adults: collect 3-5 ml whole blood)</td> <td>4 °C</td> <td>≤5 days: 4 °C &gt;5 days: -70 °C</td> <td>Collect paired samples: • acute – first week of illness • convalescent – 2 to 3 weeks later</td> </tr> </tbody> </table>		Specimen type	Collection materials	Transport to laboratory	Storage till testing	Comment	Nasopharyngeal and oropharyngeal swab	Dacron or polyester flocced swabs*	4 °C	≤5 days: 4 °C >5 days: -70 °C	The nasopharyngeal and oropharyngeal swabs should be placed in the same tube to increase the viral load.	Bronchoalveolar lavage	sterile container*	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	There may be some dilution of pathogen, but still a worthwhile specimen	Tracheal aspirate, nasopharyngeal aspirate or nasal wash	sterile container*	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	Not applicable	Sputum	sterile container	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	Ensure the material is from the lower respiratory tract	Tissue from biopsy or autopsy including from lung	sterile container with saline	4 °C	≤24 hours: 4 °C >24 hours: -70 °C	Autopsy sample collection preferably to be avoided	Serum (2 samples – acute and convalescent)	Serum separator tubes (adults: collect 3-5 ml whole blood)	4 °C	≤5 days: 4 °C >5 days: -70 °C	Collect paired samples: • acute – first week of illness • convalescent – 2 to 3 weeks later
Specimen type	Collection materials	Transport to laboratory	Storage till testing	Comment																																
Nasopharyngeal and oropharyngeal swab	Dacron or polyester flocced swabs*	4 °C	≤5 days: 4 °C >5 days: -70 °C	The nasopharyngeal and oropharyngeal swabs should be placed in the same tube to increase the viral load.																																
Bronchoalveolar lavage	sterile container*	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	There may be some dilution of pathogen, but still a worthwhile specimen																																
Tracheal aspirate, nasopharyngeal aspirate or nasal wash	sterile container*	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	Not applicable																																
Sputum	sterile container	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	Ensure the material is from the lower respiratory tract																																
Tissue from biopsy or autopsy including from lung	sterile container with saline	4 °C	≤24 hours: 4 °C >24 hours: -70 °C	Autopsy sample collection preferably to be avoided																																
Serum (2 samples – acute and convalescent)	Serum separator tubes (adults: collect 3-5 ml whole blood)	4 °C	≤5 days: 4 °C >5 days: -70 °C	Collect paired samples: • acute – first week of illness • convalescent – 2 to 3 weeks later																																
*For transport of samples for viral detection, use VTM (viral transport medium) containing antifungal and antibiotic supplements. Avoid repeated freezing and thawing of specimens.																																				
<b>Specimen labelling and processing:</b> <ul style="list-style-type: none"> <li>Personal protective equipment (apron, hand gloves, face shield, N95 Masks etc.) need to be used and a biosafety precautions should be followed so as to protect individuals and the environment.</li> <li>Proper labelling (name/age/gender/specimen ID) need to be done on specimen container and other details of sender (name/address/phone number) on the outer container by mentioning “To be tested for 2019-nCoV”</li> <li>For any queries, the nodal officer from ICMR-NIV Pune (Dr Yogesh K. Gurav, Scientist E) may be contacted (Phone: 020-26006290/ 26006390; Email: <a href="mailto:gurav.yk@gmail.com">gurav.yk@gmail.com</a>/<a href="mailto:gurav.yk@gov.in">gurav.yk@gov.in</a>) and need to be informed in advance before sending specimens to ICMR-NIV, Pune.</li> </ul>																																				



## Specimen Collection, Packaging and Transport Guidelines for 2019 novel Coronavirus (2019-nCoV)

<b>Requirements for Clinical Samples Collection, Packaging and Transport</b>			
<p>1. Sample vials and Virus Transport Medium (VTM)</p> 	<p>2. Adsorbent material (cotton, tissue paper), paraffin, seizer, cello tape</p> 	<p>3. A leak-proof secondary container (e.g., ziplock pouch, cryobox, 50 mL centrifuge tube, plastic container)</p> 	
<p>4. Hard-frozen Gel Packs</p> 	<p>5. A suitable outer container (e.g., thermocol box, ice-box, hard-board box) (minimum dimensions: 10 x 10 x 10 cm)</p> 		
<b>Procedure for Specimen Packaging and Transport</b>			
<p>1. Use PPE while handling specimen</p> 	<p>2. Seal the neck of the sample vials using parafilm</p> 	<p>3. Cover the sample vials using absorbent material</p> 	<p>4. Arrange primary container (vial) in secondary container</p> 
<p>5. Placing the centrifuge tube inside a zip-lock pouch</p> 	<p>6. Placing the zip-lock pouch inside a sturdy plastic container and seal the neck of the container</p> 	<p><i>Note: Sample vials can also be placed inside a zip-lock pouch, covered in absorbent material and secured by heat-sealing or rubber bands. Then, the zip-lock pouch should be placed inside another plastic pouch and secured</i></p>	<p>7. Using a thermocol box as an outer container and placing the secondary container within it, surrounded by hard-frozen gel packs</p> 
<p>7. Using a hard card-board box as an outer container and placing the secondary container and the gel packs</p> 	<p>8. Placing the completed Specimen Referral Form (available on <a href="http://www.niv.co.in">www.niv.co.in</a>) and request letter inside a leak-proof, zip-lock pouch</p> 	<p>9. Securing the zip-lock pouch with the Specimen Referral Form on the outer container</p> 	<p>10. Attaching the labels:</p> <ul style="list-style-type: none"> <li>• Senders' address, contact number; Consignee's address /contact number;</li> <li>• Biological substance- Category B;</li> <li>• 'UN 3373'; Orientation label, Handle with care</li> </ul> 
<p><b>Documents to accompany:</b></p> <p>1) Packaging list/proforma Invoice 2) Air way bill (for air transport) (to be prepared by sender or shipper) 3) Value equivalence document (for road/rail/sea transport) [ Note: 1. A vaccine-carrier/ice-box can also be used as an outer container 2. The minimum dimensions of the outer container should be 10 x 10 x 10 cm (length x width x height)]</p>			
<p><b>Routing of samples:</b></p> <ul style="list-style-type: none"> <li>• Clinical specimens, official documents and Specimen request forms for testing of 2019-nCoV need to be sent to the ICMR-NIV address (The Director, ICMR-National Institute of Virology, 20-A, Dr Ambedkar Road, Pune, Maharashtra, Pin: 4110001).</li> <li>• For shipment-related queries/information, kindly contact Dr Sumit Bharadwaj (Scientist B, Influenza Group) on email: <a href="mailto:sumitduttbhardwaj@gmail.com">sumitduttbhardwaj@gmail.com</a>, phone 020-26006290/26006390</li> </ul>			

## Specimen Collection, Packaging and Transport Guidelines for 2019 novel Coronavirus (2019-nCoV)

<b>Title: Specimen Collection, Packaging and Transport Guidelines for 2019 Novel Coronavirus (2019-nCoV)</b>	SOP number: ICMR-NIV/2019-nCoV/Specimens_01 Prepared by: Dr. Y.K. Gurav Date: 19/01/2020 Reviewed by: Dr. V. Potdar Date: 20/01/2020 Approved by: Dr. P. Abraham Date: 20/01/2020
--	--

**Scope:**

To be used by the Government health authorities/ hospitals/ clinicians/ laboratories planning to collect appropriate clinical samples as indicated for diagnosis of 2019-nCoV.

**Purpose:**

This document describes the information for collection, packaging and transport of clinical specimens to Influenza group at ICMR-National Institute of Virology (NIV), Pune, Maharashtra for diagnosis of 2019 Novel Coronavirus (2019-nCoV)

**Responsibilities:**

- The clinician should decide necessity for collection of clinical specimens for laboratory testing of 2019-nCoV only after following the case definition as given by the health authorities, Government of India.
- Appropriate clinical sample need to be collected by laboratory personnel/ health care worker trained in specimen collection in presence of a clinician.
- By following all biosafety precautions and using personal protective equipment (PPEs), clinical samples need to be sent to the designated laboratory (ICMR-NIV, Pune) by following standard triple packaging.

**Selection of patient:**

Any person who presents with Severe Acute Respiratory Illness (SARI) AND any one of the following i.e. a history of travel from Wuhan, China in 14 days prior to symptoms onset; disease in healthcare worker working in an environment of SARI patients; unusual or unexpected clinical course, especially sudden deterioration despite appropriate treatment; should be urgently investigated. Updated case definition need to be followed as per MOHFW, Govt of India which is available on the website [www.mohfw.gov.in](http://www.mohfw.gov.in)

**Specimen collection details:**

(Adapted from the WHO guidelines on 2019-nCoV):









Specimen type	Collection materials	Transport to laboratory	Storage till testing	Comment
Nasopharyngeal and oropharyngeal swab	Dacron or polyester flocked swabs*	4 °C	≤5 days: 4 °C >5 days: -70 °C	The nasopharyngeal and oropharyngeal swabs should be placed in the same tube to increase the viral load.
Bronchoalveolar lavage	sterile container*	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	There may be some dilution of pathogen, but still a worthwhile specimen
Tracheal aspirate, nasopharyngeal aspirate or nasal wash	sterile container*	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	Not applicable
Sputum	sterile container	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	Ensure the material is from the lower respiratory tract
Tissue from biopsy or autopsy including from lung	sterile container with saline	4 °C	≤24 hours: 4 °C >24 hours: -70 °C	Autopsy sample collection preferably to be avoided
Serum (2 samples – acute and convalescent)	Serum separator tubes (adults: collect 3-5 ml whole blood)	4 °C	≤5 days: 4 °C >5 days: -70 °C	Collect paired samples: • acute – first week of illness • convalescent – 2 to 3 weeks later

*\*For transport of samples for viral detection, use VTM (viral transport medium) containing antifungal and antibiotic supplements. Avoid repeated freezing and thawing of specimens.*

**Specimen labelling and processing:**

- Personal protective equipment (apron, hand gloves, face shield, N95 Masks etc.) need to be used and all biosafety precautions should be followed so as to protect individuals and the environment.
- Proper labelling (name/age/gender/specimen ID) need to be done on specimen container and other details of sender (name/address/phone number) on the outer container by mentioning “To be tested for 2019-nCoV”
- For any queries, the nodal officer from ICMR-NIV Pune (Dr Yogesh K. Gurav, Scientist E) may be contacted (Phone 020-26006290/ 26006390; Email: [gurav.yk@gmail.com](mailto:gurav.yk@gmail.com)/[gurav.yk@gov.in](mailto:gurav.yk@gov.in)) and need to be informed in advance before sending specimens to ICMR-NIV, Pune.

## Specimen Collection, Packaging and Transport Guidelines for 2019 novel Coronavirus (2019-nCoV)

Requirements for Clinical Samples Collection, Packaging and Transport			
<p>1. Sample vials and Virus Transport Medium (VTM)</p> 	<p>2. Adsorbent material (cotton, tissue paper), paraffin, seizer, cello tape</p> 	<p>3. A leak-proof secondary container (e.g., ziplock pouch, cryobox, 50 mL centrifuge tube, plastic container)</p> 	
<p>4. Hard-frozen Gel Packs</p> 		<p>5. A suitable outer container (e.g., thermocol box, ice-box, hard-board box) (minimum dimensions: 10 x 10 x 10 cm)</p> 	
Procedure for Specimen Packaging and Transport			
<p>1. Use PPE while handling specimen</p> 	<p>2. Seal the neck of the sample vials using parafilm</p> 	<p>3. Cover the sample vials using absorbent material</p> 	<p>4. Arrange primary container (vial) in secondary container</p> 
<p>5. Placing the centrifuge tube inside a zip-lock pouch</p> 	<p>6. Placing the zip-lock pouch inside a sturdy plastic container and seal the neck of the container</p> 	<p><b>Note:</b> Sample vials can also be placed inside a zip-lock pouch, covered in absorbent material and secured by heat-sealing or rubber bands. Then, the zip-lock pouch should be placed inside another plastic pouch and secured</p>	<p>7. Using a thermocol box as an outer container and placing the secondary container within it, surrounded by hard-frozen gel packs</p> 
<p>7. Using a hard card-board box as an outer container and placing the secondary container and the gel packs</p> 	<p>8. Placing the completed Specimen Referral Form (available on <a href="http://www.niv.co.in">www.niv.co.in</a>) and request letter inside a leak-proof, zip-lock pouch</p> 	<p>9. Securing the zip-lock pouch with the Specimen Referral Form on the outer container</p> 	<p>10. Attaching the labels:</p> <ul style="list-style-type: none"> <li>• Senders' address, contact number; Consignee's address /contact number;</li> <li>• Biological substance- Category B;</li> <li>• 'UN 3373'; Orientation label, Handle with care</li> </ul> 
<p><b>Documents to accompany:</b></p> <p>1) Packaging list/proforma Invoice 2) Air way bill (for air transport) (to be prepared by sender or shipper) 3) Value equivalence document (for road/rail/sea transport) [ Note: 1. A vaccine-carrier/ice-box can also be used as an outer container 2. The minimum dimensions of the outer container should be 10 x 10 x 10 cm (length x width x height)]</p>			
<p><b>Routing of samples:</b></p> <ul style="list-style-type: none"> <li>• Clinical specimens, official documents and Specimen request forms for testing of 2019-nCoV need to be sent to the ICMR-NIV address (The Director, ICMR-National Institute of Virology, 20-A, Dr Ambedkar Road, Pune, Maharashtra, Pin: 4110001).</li> <li>• For shipment-related queries/information, kindly contact Dr Sumit Bharadwaj (Scientist B, Influenza Group) on email: <a href="mailto:sumitduttbhardwaj@gmail.com">sumitduttbhardwaj@gmail.com</a>, phone 020-26006290/26006390</li> </ul>			



## Specimen Collection, Packaging and Transport Guidelines for 2019 novel Coronavirus (2019-nCoV)

<b>Title: Specimen Collection, Packaging and Transport Guidelines for 2019 Novel Coronavirus (2019-nCoV)</b>	SOP number: ICMR-NIV/2019-nCoV/Specimens_01 Prepared by: Dr. Y.K. Gurav      Date: 19/01/2020 Reviewed by: Dr. V. Potdar      Date: 20/01/2020 Approved by: Dr. P. Abraham      Date: 20/01/2020
--	---

**Scope:**

To be used by the Government health authorities/ hospitals/ clinicians/ laboratories planning to collect appropriate clinical samples as indicated for diagnosis of 2019-nCoV.

**Purpose:**

This document describes the information for collection, packaging and transport of clinical specimens to Influenza group at ICMR-National Institute of Virology (NIV), Pune, Maharashtra for diagnosis of 2019 Novel Coronavirus (2019-nCoV)

**Responsibilities:**

- The clinician should decide necessity for collection of clinical specimens for laboratory testing of 2019-nCoV only after following the case definition as given by the health authorities, Government of India.
- Appropriate clinical sample need to be collected by laboratory personnel/ health care worker trained in specimen collection in presence of a clinician.
- By following all biosafety precautions and using personal protective equipment (PPEs), clinical samples need to be sent to the designated laboratory (ICMR-NIV, Pune) by following standard triple packaging.

**Selection of patient:**

Any person who presents with Severe Acute Respiratory Illness (SARI) AND any one of the following i.e. a history of travel from Wuhan, China in 14 days prior to symptoms onset; disease in healthcare worker working in an environment of SARI patients; unusual or unexpected clinical course, especially sudden deterioration despite appropriate treatment; should be urgently investigated. Updated case definition need to be followed as per MOHFW, Govt of India which is available on the website [www.mohfw.gov.in](http://www.mohfw.gov.in)

**Specimen collection details:**

(Adapted from the WHO guidelines on 2019-nCoV):











Specimen type	Collection materials	Transport to laboratory	Storage till testing	Comment
Nasopharyngeal and oropharyngeal swab	Dacron or polyester flocked swabs*	4 °C	≤5 days: 4 °C >5 days: -70 °C	The nasopharyngeal and oropharyngeal swabs should be placed in the same tube to increase the viral load.
Bronchoalveolar lavage	sterile container*	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	There may be some dilution of pathogen, but still a worthwhile specimen
Tracheal aspirate, nasopharyngeal aspirate or nasal wash	sterile container*	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	Not applicable
Sputum	sterile container	4 °C	≤48 hours: 4 °C >48 hours: -70 °C	Ensure the material is from the lower respiratory tract
Tissue from biopsy or autopsy including from lung	sterile container with saline	4 °C	≤24 hours: 4 °C >24 hours: -70 °C	Autopsy sample collection preferably to be avoided
Serum (2 samples – acute and convalescent)	Serum separator tubes (adults: collect 3-5 ml whole blood)	4 °C	≤5 days: 4 °C >5 days: -70 °C	Collect paired samples: • acute – first week of illness • convalescent – 2 to 3 weeks later

*\*For transport of samples for viral detection, use VTM (viral transport medium) containing antifungal and antibiotic supplements. Avoid repeated freezing and thawing of specimens.*

**Specimen labelling and processing:**

- Personal protective equipment (apron, hand gloves, face shield, N95 Masks etc.) need to be used and all biosafety precautions should be followed so as to protect individuals and the environment.
- Proper labelling (name/age/gender/specimen ID) need to be done on specimen container and other details of sender (name/address/phone number) on the outer container by mentioning “To be tested for 2019-nCoV”
- For any queries, the nodal officer from ICMR-NIV Pune (Dr Yogesh K. Gurav, Scientist E) may be contacted (Phone 020-26006290/ 26006390; Email: [gurav.yk@gmail.com](mailto:gurav.yk@gmail.com)/[gurav.yk@gov.in](mailto:gurav.yk@gov.in)) and need to be informed in advance before sending specimens to ICMR-NIV, Pune.

## Specimen Collection, Packaging and Transport Guidelines for 2019 novel Coronavirus (2019-nCoV)

Requirements for Clinical Samples Collection, Packaging and Transport			
<p>1. Sample vials and Virus Transport Medium (VTM)</p> 	<p>2. Adsorbent material (cotton, tissue paper), paraffin, seizer, cello tape</p> 	<p>3. A leak-proof secondary container (e.g., ziplock pouch, cryobox, 50 mL centrifuge tube, plastic container)</p> 	
<p>4. Hard-frozen Gel Packs</p> 	<p>5. A suitable outer container (e.g., thermocol box, ice-box, hard-board box) (minimum dimensions: 10 x 10 x 10 cm)</p> 		
Procedure for Specimen Packaging and Transport			
<p>1. Use PPE while handling specimen</p> 	<p>2. Seal the neck of the sample vials using parafilm</p> 	<p>3. Cover the sample vials using absorbent material</p> 	<p>4. Arrange primary container (vial) in secondary container</p> 
<p>5. Placing the centrifuge tube inside a zip-lock pouch</p> 	<p>6. Placing the zip-lock pouch inside a sturdy plastic container and seal the neck of the container</p> 	<p><b>Note:</b> Sample vials can also be placed inside a zip-lock pouch, covered in absorbent material and secured by heat-sealing or rubber bands. Then, the zip-lock pouch should be placed inside another plastic pouch and secured</p>	<p>7. Using a thermocol box as an outer container and placing the secondary container within it, surrounded by hard-frozen gel packs</p> 
<p>7. Using a hard card-board box as an outer container and placing the secondary container and the gel packs</p> 	<p>8. Placing the completed Specimen Referral Form (available on <a href="http://www.niv.co.in">www.niv.co.in</a>) and request letter inside a leak-proof, zip-lock pouch</p> 	<p>9. Securing the zip-lock pouch with the Specimen Referral Form on the outer container</p> 	<p>10. Attaching the labels:</p> <ul style="list-style-type: none"> <li>• Senders' address, contact number; Consignee's address /contact number;</li> <li>• Biological substance- Category B;</li> <li>• 'UN 3373'; Orientation label, Handle with care</li> </ul> 
<p><b>Documents to accompany:</b></p> <p>1) Packaging list/proforma Invoice 2) Air way bill (for air transport) (to be prepared by sender or shipper) 3) Value equivalence document (for road/rail/sea transport) [ Note: 1. A vaccine-carrier/ice-box can also be used as an outer container 2. The minimum dimensions of the outer container should be 10 x 10 x 10 cm (length x width x height)]</p>			
<p><b>Routing of samples:</b></p> <ul style="list-style-type: none"> <li>• Clinical specimens, official documents and Specimen request forms for testing of 2019-nCoV need to be sent to the ICMR-NIV address (The Director, ICMR-National Institute of Virology, 20-A, Dr Ambedkar Road, Pune, Maharashtra, Pin: 4110001).</li> <li>• For shipment-related queries/information, kindly contact Dr Sumit Bharadwaj (Scientist B, Influenza Group) on email: <a href="mailto:sumitduttbhardwaj@gmail.com">sumitduttbhardwaj@gmail.com</a>, phone 020-26006290/26006390</li> </ul>			