



**nCorona Virus Outbreak Control and Prevention State Cell**  
**Health & Family Welfare Department**  
**Government of Kerala**

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**Sample Testing, Collection and Transport Guidelines for Laboratory  
Diagnosis of novel Corona virus infection – 2020**  
**1<sup>st</sup> February 2020**

**Whom to be tested?**

1. Samples from asymptomatic persons for those with a travel history to Wuhan, China after 15<sup>th</sup> January 2020
2. All suspected cases of 2019 nCov respiratory illness as defined in the Surveillance guidelines of Government of Kerala dated 1.1.2020

**Sample collection:** The sample should be collected as early as possible with all biosafety precautions and accompanied with detailed history of patients on the performa which can be obtained from the testing laboratory (*Presently National Institute of Virology, Pune in public sector is the testing laboratory which is diagnosing novel Corona virus infection by RT – PCR.*)

**The samples may be as follows**

**Preferably Throat Swab and Blood.** 5 ml of blood in EDTA Vacutainer need to be sent. In addition, Nasopharyngeal and Oropharyngeal swab, Bronchoalveolar lavage, Tracheal aspirate (*for patients in ventilator*), nasopharyngeal aspirate or nasal wash, Sputum or Tissue from biopsy or autopsy including from lung.

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

**Collection of Nasopharyngeal Swab:**

This can be collected by two methods: (Through the nasal route or through oral route)

**Nasopharyngeal swab through Nasal route:**

- Insert a thin flexible swab into nostril and right upto nasopharynx.
- Leave the swab in place for a few seconds.
- Slowly remove swab while slightly rotating it.
- Use a different swab for the other nostril.
- Put swab with tip downwards into vial containing VTM, breaking applicator's stick.
- Both the swabs can be put in same VTM vial

**Nasopharyngeal swab through Oral route:**

- Insert a thin flexible swab through mouth over the tongue and turn the swab upwards behind the soft palate to reach the nasopharynx.
- Leave the swab in place for a few seconds.
- Slowly remove swab and put the swab with tip downwards into vial containing VTM, breaking the extra portion of the swab stick.

**Transportation and Storage of samples:**

- 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.
- Samples should be safely packed in triple container packing and should be transported under cold chain (4°C) to the testing laboratory with prior intimation. Before dispatching the sample, disinfect the outer surface of container using 1: 100 dilution of bleach or 5% Lysol solution.

- Sample containing vials should be kept in good quality plastic bags tied with rubber bands so that inside material if leaks should not come out of bag. The plastic bag should be kept in another container which should be sealed with adhesive tape. This carrier should be placed in another plastic bag sealed with rubber bands and placed in thermocol / vaccine carrier containing ice. The case sheets with complete information should be placed in plastic bag and should be pasted outside the container.
- Samples should be transported at 4°C if they arrive at the laboratory within 48 hours; The sample must be stored at – 70°C if storage is required for longer periods.
- 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”** .
- Samples from the hospitals to be send through the concerned District Surveillance Officers of the district, with concurrence and covering letter from State Surveillance Officer.
- For any queries, Dr Nikhilesh (9446407443)/ Dr Chitra (9446118061) may be contacted and need to be informed in advance before sending specimens to ICMR-NIV, Pune.

  
PRINCIPAL SECRETARY