

**GOVERNMENT OF ANDHRA PRADESH
HEALTH MEDICAL & FAMILY WELFARE DEPARTMENT**

Order No. 90 /COVID-19/2020

Date: 31.12.2020

COVID INSTANT ORDER -90

- Sub: Conduct of sentinel surveillance for new variant strain of SARS-COV-2 - certain guidelines issued –reg
- Ref: 1. Genome surveillance for SARS-COV-2 in India – constitution of Genomics consortium (INSACOG) by MoHFW, GOI, New Delhi
2. Covid instant order 89 dated 22.12.2020

Covid pandemic has posed the biggest public health challenge of the century and to contain the spread of the disease, government of Andhra Pradesh has taken up several measures in tracing, testing, treating and advocating multi pronged strategies to inculcate covid appropriate behavioral changes among the public. As these measures are yielding results, the sudden outbreak of a new SARS-CoV-2 variant in the UK requires to increase viral Genomic surveillance in order to understand the spread of the virus in a rapid and robust manner.

To understand and develop appropriate measures, the Government of India In the reference 2nd cited, had advocated an **Indian SARS-CoV-2 Genomics Consortium** which will help to expand whole genome sequencing of SARS-CoV-2 virus across the nation, aiding government to understand how the virus spreads and evolves. Any changes to the genetic code, or mutations, can be observed in the samples.

The regional genome sequencing laboratories at Hyderabad (CSIR-Centre for Cellular and Molecular Biology (**CCMB**) and DBT-Centre for DNA Fingerprinting and Diagnostics (**CDFD**), Hyderabad with estimated sequencing capacity – 5000 per month at CCMB) and 1200 at CDFD) will have to be sent 5% of the positive samples from districts to these labs for genome sequencing as the representative positive samples from various regions for genome sequencing. Further, the data from the genome sequencing laboratories will be analyzed as per the field data trends to study the linkages (if any) between the genomic variants and epidemiological trends. This will help to understand **super spreader events**, outbreaks and strengthen public health interventions across the country to help in breaking the chains of transmission.

The new SARS COV 2 variants, preliminary analysis (based on epidemiological and mathematical model) in the UK suggests that this variant is significantly more transmissible than previously circulating variants, with an estimated potential to increase the reproductive number (R) by 0.4 or greater with an estimated increased transmissibility of up to 70%.

Selection of samples for genome sequencing:

1. All the positive persons detected through screening of International travellers arriving in the state (including those having travelled from or transited through UK) by RT-PCR – samples 100% (MOH&FW guidelines for screening of passengers, community tracing is Annexure B).
2. a) All positive samples from people who are either participating in vaccine trials or have been vaccinated,
b) All positive samples from people with a prior history of infection and confirmed re-infection should be included.
3. Samples of all the international passengers (100%), who have arrived in India since 23rd November, 2020 and tested positive by RT-PCR to be collected from the relevant lab and transported /referred for genome sequencing.
4. All the international passengers who have arrived in India during last 21 days (from 9th December to 22nd December, 2020), if symptomatic and tested positive will be subjected to genome sequencing. Others will be followed up by the respective district surveillance officers and will be tested as per ICMR guidelines (**even if asymptomatic**) between 5th and 10th day and found positive by RT-PCR. (list to be provided by Airport Heath officers/Bureau of immigration).
5. Representative positive specimens (randomly sampling 5% of the positive specimens) – approximately 5% of the specimens detected positive since 23rd November, 2020 will be sent to the CCMB/CDFD)
6. A brief socio-demographic, clinical and travel information (annexure 2) containing sheet should accompany all randomly drawn samples collected from airports and quarantine centres)

Establishment of sentinel surveillance: It is proposed that 5% of the positive specimens detected daily will be referred to the CCMB/CDFD for genome sequencing. SSU (State surveillance unit) will coordinate with the district units for taking a representative sample from all the positive cases detected on the previous day for sending to the designated RSGL.(**CCMB/CDFD**)

Selection and location of sentinel sites: As per the laid down epidemiological criteria sentinel sites will be selected in each district for collecting positive samples (as decided by State IDSP and District IDSP Teams).

Specimen Collection, Packaging and Transport Guidelines for SARS-CoV-2 positive samples for genome sequencing

The laboratory in-charge will collect, package & transport SARS- CoV-2 positive samples which are positive for SARS-CoV-2 by RT PCR preferably with a Ct value of 30 or less should be packaged & transported.

After carrying out the RT-PCR test the remaining samples (within 72 hours of collection, stored at 2-8°), which are RT-PCR positive (Ct value <30), will be transported in VTM with cool pack (4-8 degree) or in ice.

Alternatively, remaining RNA samples may be stored and aliquoted in the 1.5 ml micro centrifuge tubes followed by proper labelling and sealing with the parafilm (stored at -70degree). RNA placed together in plastic/ cardboard cryobox and packed in the thermocol box with dry ice should be shipped to the respective RGSL for sequencing.

Samples should be packaged and transported with all biosafety precautions and should be accompanied with line list and details of samples including the Ct values of all the target genes detected as per the annexure 2 in standard triple packaging.

The packaging consists of three layers as follows.

1. **Primary receptacle:** A labelled primary watertight, leak-proof receptacle containing the specimen. The receptacle is wrapped in enough absorbent material to absorb all fluid in case of breakage.
2. **Secondary receptacle:** A second durable, watertight, leak-proof receptacle to enclose and protect the primary receptacle(s). Several wrapped primary receptacles may be placed in one secondary receptacle. Sufficient additional absorbent material must be used to cushion multiple primary receptacles.
3. **Outer shipping package:** The secondary receptacle is placed in an outer shipping package which protects it and its content from outside influences such as physical damage and water while in transit .
4. Personal protective equipment (apron, hand gloves, face shield, N95 Masks etc.) need to be used and all biosafety precautions should be followed while carrying out sample packaging and transport.

In this background, all the District collectors are requested to make necessary arrangements for sample collections by the rapid response teams as per the guidelines detailed above and also arrange to send the samples to the Centre for cellular and Molecular Biology(CCMB) or Centre for DNA Finger printing diagnosis (CDFD), Hyderabad.

22nd December, 2020

Government of India
Ministry of Health and Family Welfare
Standard Operating Procedure for Epidemiological Surveillance and Response in the
context of new variant of SARS-CoV-2 virus detected in United Kingdom

Introduction

A new variant of SARS- CoV 2 virus [Variant Under Investigation (VUI)-20212/01] has been reported by the Government of United Kingdom (UK) to World Health Organization (WHO). This variant is estimated by European Center for Disease Control (ECDC) to be more transmissible and affecting younger population. This variant is defined by a set of 17 changes or mutations. One of the most significant is an N501Y mutation in the spike protein that the virus uses to bind to the human ACE2 receptor. Changes in this part of the spike protein may result in the virus becoming more infectious and spreading more easily between people.

Scope

This Standard Operating Procedure (SOP) describes the activities to be undertaken at the point of entry and in the community for all International passengers who have travelled from or transited through UK in the past 4 weeks (from 25th November to 23rd December 2020). Any reference to testing in this SOP implies RT-PCR testing only.

Part A

Actions to be taken at International Airports

All international travelers as described in the scope above will be required to declare as per existing procedure, their travel history (of past 14 days) and fill up the Self Declaration Form to be screened for COVID-19.

The flights from UK stand suspended temporarily from 23rd December till 31st December 2020 or till further orders. All the passengers coming from UK during the intervening period from 21st to 23rd December 2020 shall be subjected to the following process:

1. Respective State governments shall ensure that all passengers travelling from or transiting through airports in UK and disembarking in India would be subjected to RT-PCR test on arrival. In case of a positive sample, it is recommended that spike gene-based RT-PCR test should also be performed by an appropriate laboratory.
2. Passengers testing positive shall be isolated in an institutional isolation facility in a separate (isolation) unit coordinated by the respective State Health Authorities. They would earmark specific facilities for such isolation and treatment. Necessary action to send the samples to National Institute of Virology (NIV), Pune or any other appropriate lab for genomic sequencing will be initiated at the facility level.
 - a. If the report of the sequencing is consistent with the current SARS-CoV-2 virus genome circulating in the country; the ongoing treatment protocol including home isolation/treatment at facility level as per case severity may be followed.
 - b. If the genomic sequencing indicates the presence of new variant of SARS-CoV-2 then the patient will continue to remain in a separate isolation unit. While necessary treatment as per the existing protocol will be given, the patient shall be tested on 14th day, after having tested positive in the initial test. In case the sample is found positive on 14th day, further sample may be taken until his two consecutive samples taken 24 hours apart are tested negative.
3. Those who are found negative on testing with RT-PCR at the airport would be advised quarantine at home and followed up as detailed in Part-C.
4. The concerned airlines shall ensure that prior to check-in, the traveler is explained about this SOP. In-flight announcements must also be made explaining the relevant information to the passengers. Relevant information in this regard shall be prominently displayed in arrival area and waiting area of the airports.
5. Adequate arrangements for passengers waiting for their RT-PCR test results duly following effective isolation may also be made at the airports in conjunction with the airport authorities.

Part B

SOP for Bureau of Immigration (BOI)

1. The State-wise passenger manifest of the flights from UK landing at various International airports in India for the past 4 weeks (from 25th November 2020 to 23rd December 2020) shall

- be conveyed by the Bureau of Immigration to State Government/Integrated Disease Surveillance Programme (IDSP) so that this data would be provided to the surveillance teams.
2. Bureau of Immigration shall share these manifest at the idsp-npo@nic.in and designated e-mails provided by the respective State Governments.
 3. The data of manifests provided by Bureau of Immigration will be supplemented by the online Self-declaration Forms available on 'AIR SUVIDHA' portal.

Part C

SOP for Surveillance by State Governments/ Integrated Disease Surveillance Programme (IDSP)

1. All the contacts* (without any exception) of those travelers who arrived at various airports on 21st -23rd December, 2020 and tested positive would be subjected to institutional quarantine in separate quarantine centers and would be tested as per ICMR guidelines (or earlier if the passenger develops any symptoms suggestive of COVID-19) as per Clause 1 in Part A. Contacts testing positive shall be subjected to activities mentioned in Clause 2 of Part A.

(*Contacts of the suspect case are the co-passengers seated in the same row, 3 rows in front and 3 rows behind along with identified Cabin Crew)

2. The list of travelers (travelling between 21st -23rd December) who are found RT-PCR negative at airport testing shall be shared with the respective States by the Central unit of IDSP (facilitated by APHO/ BOI). They shall be advised for quarantine at home and tested as per ICMR guidelines (or earlier if the passenger develops any symptoms suggestive of COVID-19) as per Clause 1 of Part A. Their monitoring would be ensured by respective State Governments/IDSP. Those found positive shall be subjected to activities mentioned in Clause 2 of Part A.
3. Those international travelers from UK who arrived in India from 25th November to 8th December 2020 (1st & 2nd week from 25th November) will be contacted by District Surveillance Officers and advised to self-monitor their health. If anyone amongst them develops symptoms, they will be tested by RT PCR as detailed in Clause 1 of Part A.

- If tested positive, genetic sequencing will be done. If the results are consistent with current circulating SARS-CoV2, action as contained in Clause 2(a) of Part A will be followed.
 - If the results of genomic sequencing are consistent with new variant, then action contained in Clause 2(b) of Part A will be followed.
4. The list of international travelers who arrived in India, as described in the scope above, between 9th December to 23rd December (3rd & 4th week) will be shared with respective State / District Surveillance Officers for daily follow up till 14 days after their arrival in India.
 5. Passenger will be provided following advice during first visit / contact by health care provider:
 - a. You will also receive daily calls/visit from State health officials 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 COVID-19 i.e. Fever, Cough, Difficulty in breathing for 28 days from the date of arrival from UK.
 - c. In case you develop symptoms (fever, cough, difficulty in breathing), put on a mask immediately, isolate yourself at home, and inform District Surveillance Officer or contact National (1075) or State Helpline.
 6. District Surveillance Officer has to ensure daily follow up of passengers under observation for 28 days starting from date of arrival.
 7. For all travellers, listed in Para 4 above, District Surveillance Officer shall facilitate testing (irrespective of previous testing at the place of origin or at the airport of arrival) with RT-PCR. In case the passengers have moved to locations outside the city of arrival, intimation should be sent to the concerned District/ State for needful as above.
 - a. Those who test positive shall be isolated in an institutional isolation facility in a separate (isolation) unit by the respective State health authorities and necessary action as in Clause 2(a) Part A will be followed.
 - b. If the genomic sequencing indicates the new variant of SARS-CoV-2 then action as in Clause 2 (b) Part A will be followed.

8. All the community contacts (without any exception) of those travelers who have tested positive would be subjected to institutional quarantine in separate Quarantine Centers and would be tested between 5-10th day as per current ICMR guidelines using RT-PCR as in Clause 1 of part A (or earlier if the passenger develops any symptoms suggestive of COVID-19). Community contacts testing positive shall be subjected to activities as in Clause 2 of Part A.
9. Information regarding any passenger covered within the scope of this SOP, who travels to another State will be immediately notified to the concerned State Health Authority. If any passenger is not traceable initially or during any duration while being followed up should be immediately notified to Central Surveillance Unit of IDSP by the District Surveillance Officer.

