



GOVERNMENT OF KARNATAKA

No: HFW 90 CGM 2020

Karnataka Government Secretariat,
Vikasa Soudha,
Bengaluru, Date: 17th April 2020.

CIRCULAR

SUB : Guidelines for Testing of Pooled samples using RT – PCR.

REF : ICMR Advisory on feasibility of using pooled samples for Molecular testing on COVID -19 Dt : 13 / 04/2020

The number of COVID -19 cases in India is rising exponentially. In view of this, it is critical to increase the number of tests conducted by the laboratories. A pooled testing algorithm involves the PCR screening of a specimen pool comprising multiple individual patient specimens, followed by individual testing (pool de-convolution) only if pool screens are positive. As all the individual samples in a negative pool are regarded as negative, it results in substantial cost savings when a large proportion of pools tests negative. As positivity rate in the COVID-19 cases is still low, pooled samples screening may be adopted to optimize the resources.

In order to increase the capacity of the laboratories to screen the increased numbers of samples using molecular testing for COVID -19 for the purpose of surveillance, the Expert Group after holding deliberations on the Advisory issued by ICMR for Pool Testing of samples using RT PCR has recommended guidelines to be adopted for Karnataka. Accordingly, the following guidelines are issued for Pool Testing of samples using RT PCR for testing COVID-19 :

1. Pooling of samples for COVID 19 PCR testing should be based on the ***Prevalence data*** where available and when unavailable, the ***Test Positivity Rate*** (Number Positive / Number Tested) may be considered as surrogate evidence.
2. Pooling of samples is ***not recommended for Symptomatic cases .***
3. Pooling of samples is ***not recommended for samples of known Direct High Risk contacts*** with confirmed cases and ***health care workers.***
4. Pooling of samples is ***not recommended*** in areas or population with positivity rates of >5% for COVID-19

5. Pooling of samples for PCR screening may be considered only in **community survey or surveillance among Asymptomatic individuals for samples collected in areas with Positivity Rate of 2 to 5% .**
6. In areas (Districts / Cities and towns) **where no data is available at present or the prevalence is < 2% samples may be pooled** only if they are from asymptomatic individuals. **Samples collected from Symptomatic patients should NOT be included in the Pool.**
7. **How do you pool samples and what do you pool ?**
 - a) Carefully note down the details of the patients samples that are being pooled so that you can go back to them and individually test them when a pool is positive.
 - b) Pooling is advised only for **Viral Transport Medium (VTM)** containing Nasal and throat swabs received in the laboratory.
 - c) 200µl of sample from the Viral Transport Mediums of **5 Patients** can be pooled into one separate sterile tube, mixed well and used for extraction of RNA.
 - d) **Do not pool samples from more than 5 patients in one pool at a time to avoid the effect of dilution leading to false negatives.**
 - e) **If a pooled sample is Positive,** all the five individual samples of that particular POOL should be tested individually.

Caution:

- Separate swab and VTM to be used for each Individual.
- Under any circumstances single swab should **not be used** for multiple patients / individuals.

(JAWAID AKHTAR)

Additional Chief Secretary to Government
Health and Family Welfare Department

To:

- 1) All Government / Private Laboratories testing COVID.
- 2) Commissioner, Health & Family Welfare Services, Bengaluru.
- 3) Mission Director, National Health Mission, Bengaluru.
- 4) All Deputy Commissioners.
- 5) Director of Health & Family Welfare, Bengaluru
- 6) Director of Medical Education, Bengaluru
- 7) Project Director (IDSP)/Joint Director (CMD), Health & Family Welfare Services, Bengaluru.
- 8) All District Health Officers / All Dist. Surgeons.