

Saline gargle RT-PCR test technology

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In news- Recently, Nagpur-based National Environmental Engineering Research Institute (NEERI) under the CSIR has transferred the know-how of indigenously developed Saline Gargle RT-PCR technique, used for testing COVID-19 samples.

Saline Gargle RT-PCR technology-

- It is simple, fast, cost-effective, patient-friendly and comfortable technology.
- It also **provides instant test results** and is well-suited for rural and tribal areas, given minimal infrastructure requirements.
- The **method is non-invasive and simple enough for a patient to collect his/her own sample** for testing.
- A simple collection tube filled with a saline solution is used.
- The patient gargles with the solution and rinses it inside the tube.
- The sample is then taken to a laboratory where it is kept at room temperature in a special buffer solution prepared by NEERI.
- An RNA template is produced when this solution is heated, which is further processed for RT-PCR test.
- This particular method of collecting and processing the sample enables to save on the otherwise costly infrastructural requirement of RNA extraction.
- The government had in May announced the development of this technology that was also approved by the Indian Council of Medical Research (ICMR).
- **The knowhow of the technology has been transferred to the Union Ministry of Micro, Small & Medium Enterprises (MSME),** on a non-exclusive basis.

- **This would enable the innovation to be commercialized and licensed to all capable parties,** including private, government and various rural development schemes and departments.

National Environmental Engineering Research Institute (NEERI)-

- It was **established in Nagpur in 1958** with focus on water supply, sewage disposal, communicable diseases and to some extent on industrial pollution and occupational diseases found common in post-independent India.
- It is a pioneer laboratory in the field of environmental science and engineering and is a constituent laboratory of Council of Scientific and Industrial Research (CSIR).
- It comes under the **Ministry of Science and Technology.**
- It has five zonal laboratories at Chennai, Delhi, Hyderabad, Kolkata and Mumbai.
- The NEERI is an important partner organization in India's POPs National Implementation Plan (NIP).