

86 SPEED POST
स्वास्थ्य अनुसंधान विभाग
Department of Health Research
जारी किया
Issued

No.Q-11030/01/2020-HR/coffice-8048406

Government of India

Ministry of Health & Family Welfare
(Department of Health Research)

2nd Floor, Red Cross Building, New Delhi

Dated: 18th August, 2020

Subject: - Monthly Summary to the Cabinet for the month of July, 2020-Reg.

The undersigned is directed to circulate herewith a copy of the unclassified portion of the **Monthly Summary for the Cabinet** pertaining to the Department of Health Research (Ministry of Health and Family Welfare) for the month of July, 2020.


(Aruna Bahl Sen)

Deputy Secretary to the Govt. of India
Email: dhrhq.icmr@gmail.com

To

1. All members of Council of Ministers
2. Deputy Chairman, NITI Aayog, Yojana Bhawan, New Delhi.
3. The Principal Information Officer, Ministry of Health and Family Welfare, New Delhi

Copy to:

The Director, Cabinet Secretariat, Rashtrapati Bhawan, New Delhi-110001

Copy also forwarded for information to:

1. Secretary to the Government of India, All Ministries/Departments.
2. The Chairman, UPSC, Shahjahan Road, New Delhi.
3. Secretary to the President of India (Rashtrapati Ke Sachiv), Rashtrapati Bhawan, New Delhi.
4. Secretary to the Vice-President of India (Up-Rashtrapati ke Sachiv), Rashtrapati Bhawan, New Delhi.
5. PS to Prime Minister of India, South Block, New Delhi
6. Secretary, Inter-State Council Secretariat, MHA, Vigyan Bhawan Annexe, New Delhi.

Monthly report in the format on important issues/ developments for the month of July, 2020 is submitted herewith for kind perusal.

1. Important policy decisions taken and major achievements during the month:

a) Global coronavirus COVID-19 management measures in India: Following new measures and initiatives were taken besides the timely COVID-19 testing and reporting.

- 1) **Expansion of COVID 19 testing facilities:** A total of 303 new testing labs (172 Govt and 131 Private) were approved and functionalized for COVID-19 testing in the month. Accordingly, a total of 90,30,575 samples have been tested in the month and the testing capacity was increased to 5,15,472/day.
- 2) **Approved a total of 1310** (906 Governments and 404 Private) Labs for COVID-19 testing:
 - **Real-Time RT PCR for COVID-19:** 668 (Govt: 407 + Private: 261)
 - **TrueNat Test for COVID-19:** 536 (Govt: 467 + Private: 69)
 - **CBNAAT Test for COVID-19:** 106 (Govt: 32 + Private: 74)
- 3) **Inauguration of three ICMR High-Throughput COVID-19 Testing Laboratories** at Noida, Mumbai, Kolkata by Honourable Prime-minister.
- 4) **Established a network of 17 National Biorepositories Labs in India** for collecting, storing and maintaining clinical samples (oropharyngeal/nasopharyngeal swabs, bronchoalveolar lavage, sputum, blood, urine and stool) of COVID19 patients to be used for developing validated diagnostics, therapeutics, vaccines etc. and also as a valuable resource for research & development related activities to understand the early predictors of disease severity, immunopathogenesis of the disease etc.
- 5) **Evaluated immunogenicity and protective efficacy** of inactivated SARS-CoV-2 **candidate vaccine** partnered with Bharat Biotech International Limited (BBIL) in animal models.
- 6) **Performed evaluation of immunogenicity and protective efficacy** of another three inactivated SARS-CoV-2 vaccine candidate in animal models i.e. in Syrian hamsters and monkeys.
- 7) **Initiated National sero-surveillance study** to monitor the trend of SARS-CoV-2 infection transmission in India, in containment areas (Clusters) of Ahmedabad and Surat.
- 8) **Initiated the study entitled** "Transmission of COVID-19 disease and occupational mental health among **health care professionals** involved in COVID-19 management".
- 9) **Performed validation of COVID-19 test kits:** Out of a total of 26 requests received for validation of COVID-19 test kits only 3 were found satisfactory. Also the validation of another 30 requests submitted by various distributors through the online portal for kit validation is under progress.

- 10) **Transferred COVID Kavach IgG ELISA technology to 7 pharma companies** (Zydus Cadila, Voxture Bio, Trivitron, Avecon, Meril diagnostics, J. Mitra and Karwa enterprises).
- 11) **Conducted screening of followings potential antiviral drugs against COVID-19:**
 - a. Screening of 9 compounds submitted by Cipla were performed by MTT as well as antiviral assays.
 - b. MTT assay has been completed for Lopinavir, Lactoferrin, Methisoprinol, Chlorophyllin and Eflornithine.
 - c. Antiviral assay in Vero cells has been completed for Lopinavir and Lactoferrin, and in progress for Methisoprinol, Chlorophyllin and Eflornithine.
- 12) **Published Expression of Interest (EOI) inviting for validation of rapid antigen detection assays for covid-19.** So far, ICMR has validated and approved only one rapid antigen detection assay from SD Biosensor.
- 13) **Developed and optimized an indirect Anti SARS-CoV-2 Hamster IgG ELISA** for screening of hamster samples of vaccine trial studies.
- 14) **Developed and optimized anti-SARS-CoV-2 equine IgG ELISA** for screening of horse serum samples received from Biological E.
- 15) **Preparations of reagents for diagnosis of covid-19:** Prepared and supplied Vero CCL-81 cell flasks sufficient to produce around 8.38 litres of SARS-CoV-2 antigen for use in anti-SARS-CoV-2 IgG ELISA.
- 16) **Performed testing and validation experiments on commercial technologies/equipment for surface decontamination:** Performed the testing and validation experiments and issued final evaluation and response reports on three commercial technologies/equipment for surface decontamination of SARS-CoV-2 in BSL-3 facility.
- 17) **Initiated development of technologies** on low-cost diagnostic kit for COVID-19 (Lamp Assay); magnetic stand for COVID-19 testing; and UV sanitiser dustbin for disinfection.
- 18) **Following procurement were made regarding Covid-19 during the month.**

Statement showing the procurement made regarding COVID-19 through HITES and ICMR HQRS.

S. No.	1	2
	Name of item	Quantity of Order
1.	Standard Q Covid-19 Ag Test	1.5 Lakhs Test
2.	CFX96-IVD RT-PCR System - Machine	16 Nos.
3.	Cobas 6800 SARS-CoV2 Assay	50,000 Tests
4.	Combo RT-PCR Kits	3.5 Lakhs Test

- 19) **Issued office orders and details about 4 Central ICMR Depots, 16 Regional Depots and 396 laboratories** for distribution; coordination and validation teams for Covid 19 kits and equipments.
 - 20) **Issued a letter to Chief Secretary/ Administrator/Adviser to Governor/ Advisor** to Lt. Governor on 'Empowering citizens for testing of SARS-CoV-2 virus to save precious lives and contain the virus'.
 - 21) **Issued guidelines for storage of respiratory specimens** collected for COVID-19 diagnosis by RT PCR platforms in 23 Government QC laboratories.
 - 22) **Issued guidance document for evaluation of novel applications for COVID-19** on investigational products, Technologies, Drugs, AYUSH regimens & Devices for COVID-19.
 - 23) **Issued ICMR-DCGI guidelines for validation and batch testing** of CE-IVD approved/ Non US-FDA approved/ Indigenous covid-19 diagnostic kits.
 - 24) **Conducted training program** on Viral Diagnostics' for scholars/project staffs for COVID19 diagnosis (Reverse Transcriptase RT-PCR tests) at various institutions.
 - 25) **Organized workshop on COVID-19** for Medical Officers of Military Hospital Dinjan and Transit Army Camp, Dibrugarh.
 - 26) **Published a special issue** on "India & COVID -19 (Part II)".
- b) **Merged / amalgamated The National Institute of Miners' Health (NIMH)**, an autonomous body under the Ministry of Mines (MoM) with ICMR-National Institute of Occupational Health (NIOH), Ahmedabad, Ministry of Health & Family Welfare (MoH&FW).
 - c) **Inaugurated and made functional a Bio Safety 2+ level laboratory** at ICMR-RMRC, Gorakhpur (Inaugurated by Honorable Chief Minister, Uttar Pradesh). The laboratory tested a total of 50,433 clinical specimens of suspected cases of nCov-19 through rRT-PCR method till 20th July 2020.
 - d) **Development of Serodiagnostic assays for Nipah virus:** Developed and evaluated Immunoglobulin M based Enzyme-linked immunosorbent assay (ELISA) for the diagnosis of acute infection and surveillance activities. The developed anti-Nipah Human IgM ELISA. IgM assay exhibited sensitivity and specificity of 90 and 94% respectively with the gold standard test and also compared with CDC gold standard assay for sensitivity and specificity, which was found to be 100.0 % and 83.3%, respectively.
 - e) **Study on Polio and Non-Polio Enterovirus Infections in patients with Primary Immunodeficiency disorders at multiple medical institutes across India:** Isolation of type 1 Vaccine Derived Poliovirus (VDPV1) with 16 nucleotide changes from the parent Sabin 1 strain from a patient with the primary immunodeficiency disorder with hypogammaglobulinemia was achieved. These findings are important in view of global eradication of polio.
 - f) **Zika epidemiology and surveillance:** A total of 46 serum and 07 cord blood samples were tested by Zika Real time RT PCR and 46 serum samples were tested by Zika IgM and Zika IgG ELISA under the 'Cohorts for Zika Epidemiology in India (COZEI)' study. Results of Zika virus neutralization assay of 13 samples were submitted.

- g) **QC testing of the VRDLs:** A total of 306 samples received from VRDLs were tested at the Resource Centre for VRDLs as part of the QA/QC programs. Reports of QA/QC testing were issued to 14 VRDLs.
- h) **Initiated/completed 20 projects:** Including factors related to Covid-19 stigma: A mixed methods study; Study to evaluate the effectiveness of BCG vaccine in reducing morbidity and mortality in elderly individuals in COVID-19 hotspots in India; Population-based serosurvey for SARS-CoV-2 infection transmission in Greater Chennai Corporation, Tamil Nadu; Managing NCD during COVID-19 pandemic; Assessing community preparedness during COVID-19 pandemic in select districts in South India; Demography Integrated Surveillance for Health Assessment (DISHA) on Dengue and Chikungunya in Tigriria block of Cuttack district, Odisha; Tracking antimicrobial resistance and efficiency of malaria diagnostics in tribal areas of India to achieve elimination goals; DHR-ICMR Advance Medical Oncology Diagnostic Services (DIAMONDS) under HTAIn Pilot Research Project.
- i) **Published 75 lead papers:** Including coronavirus disease pandemic (COVID-19): Challenges and a global perspective; COVID-19 and noncommunicable diseases; Quasispecies analysis of the SARS-CoV-2 from representative clinical samples - a preliminary analysis; Transcriptome and viral growth analysis of SARS-CoV-2 infected Vero CCL-81 cells; Inactivation of SARS-CoV-2 by Gamma Irradiation; Distribution and growth rate of COVID-19 outbreak in Tamil Nadu: A log-linear regression approach; Experiential learnings from the Nipah virus outbreaks in Kerala towards containment of infectious public health emergencies in India.
- j) **Undertaken more than 16 (Videoconferencing/ Webinar/ Virtual) meetings** on Epidemiology and Public Health of COVID-19; Covid-19 depot management review meeting on logistic issues "SIRD Model to predict COVID-19 outbreak in Tamil Nadu; with Zydus Cadila to discuss on the studies on DNA Vaccine against SARS-CoV-2 Challenge in Rhesus monkeys; with Intas Pharmaceuticals, to discuss neutralization tests for hyperimmune globulin for COVID-19; with the Vins Bioproducts Ltd., to discuss production of SARS-CoV-2 antigen for development of antisera; with Serum Institute of India on vaccine strategy; with Panacea Biotec Ltd., to discuss COVID-19 vaccine development program; with Dr. Adrian Hill, to discuss the Oxford COVID-19 vaccine development; with WHO India and NPSP SMO for the case/community investigation of the child detected with iVDPV1 for the study on Polio and Non-Polio Enterovirus Infections in patients with Primary Immunodeficiency disorders at multiple medical institutes across India.