GOVERNMENT OF INDIA
MINISTRY OF HEALTH AND FAMILY WELFARE
DEPARTMENT OF HEALTH AND FAMILY WELFARE

RAJYA SABHA
UNSTARRED QUESTION NO. 279
TO BE ANSWERED ON 05.12.2023

THREAT OF NIPAH VIRUS

279. SHRI K.C. VENUGOPAL:

Will the Minister of **HEALTH AND FAMILY WELFARE** be pleased to state:

(a) the details of Government's assessment of the current Nipah virus threat, and whether there are identified factors contributing to its potential spread;
(b) the details on the measures implemented by Government to curb the spread of Nipah and the manner in which these effective measures have been thus far;
(c) whether Government has identified specific hotspots or regions more susceptible to the Nipah virus;
(d) the details of the proactive steps being taken in these areas to prevent outbreaks; and
(e) whether there are ongoing research initiatives or collaborations with health organizations to better understand the reasons behind the Nipah threat and develop comprehensive strategies to address it?

ANSWER
THE MINISTER OF STATE IN THE MINISTRY OF HEALTH AND FAMILY WELFARE
(PROF. SATYA PAL SINGH BAGHEL)

(a): In India, Nipah Outbreaks were reported in West Bengal (in 2001 & 2007) and in Kerala (in 2018, 2019, 2021 & 2023). Nipah virus (NiV) infection is a zoonotic disease transmitted from fruit bat to human causing acute hemorrhagic fever. Its natural reservoir is large fruit bats and the transmission is largely through contact with infected individuals, animals, and consumption of contaminated date palm sap/juice or toddy, handling contaminated fallen fruits.

(b): MoHFW does the disease surveillance in the country through Integrated Disease Surveillance Program (IDSP). IDSP is implemented in all 36 States/UTs. Under this program there is a Central surveillance Unit (CSU) at Central level, State Surveillance Unit (SSU) at the State/UTs level and District Surveillance Unit (DSU) at district level. The program is responsible for the surveillance of 34 epidemic prone diseases and outbreak investigation.

IDSP plays a crucial role in prompt response and surveillance of emerging and re-emerging diseases including Nipah Virus disease in the country. Through surveillance mechanism the early warning signals are captured to generate alerts, detect outbreaks in the early rising phase, outbreak investigations are conducted and timely appropriate measures are undertaken by the respective public health agencies to control and prevent the further spread of the disease.

On September, 2023, three teams were immediately deployed by the MoHFW to provide onsite diagnosis using Mobile BSL-3 facility, and bat survey to trace the source of infection in the index case.

(c): In India, recently cases of Nipah Virus Disease have been reported only from few districts of Kerala.

(d): Country wide survey on Bats were initiated to understand the Nipah virus infection spill over. Intensive training of more than 30,000 health care workers across the State of Kerala in all the outbreaks on biosafety, sample collection and packaging and donning and doffing of personal protective equipment (PPEs) has been done.

State Government of Kerala has created stand-alone isolation facility in Government Medical College (GMC), Kozhikode and Ernakulam for Nipah suspected and confirmed cases, Nipah control room was set up, enhanced contact tracing and surveillance with modified risk categorization, enhanced information and education strategies for community participation and mobilization and smooth coordination with all stakeholders.

During the current Nipah outbreak, Nipah Point of Care (PoC) assay was set up for on-site investigation and a team of Microbiologist and Technicians from eleven Government Medical Colleges of Kerala were trained for the same at regional VRDL, GMC, Kozhikode. PoC assay had been successfully used in the current Nipah outbreak in September 2023 as well as during the earlier Nipah outbreak in 2019.

(e): ICMR-NIV, Pune had successfully isolated the Nipah virus after 2018 outbreak and developed the indigenous Nipah serological assays for Humans, Bats and Swine which can be used for the seroprevalance studies and other ecological niches.

NIV had also standardized and validated the PoC assay for Nipah virus diagnosis which was used in Nipah outbreak 2019 and 2021 at field set up. The Drugs Controller General of India not only approved the PoC for the bedside diagnosis but also gave Emergency use approval during Nipah outbreak 2021.

ICMR-NIV, Pune developed Nipah Point of care assay in collaboration with Molbio Diagnostics Pvt. Ltd. Truenat™ NiV PoC assay; being portable, with ease-of-use at rural settings can be performed at field setting using BSL-3 PPEs. It has ability to work even at Primary Healthcare Centers and with wireless data transfer capability. This can facilitate early detection of cases even in remote settings.

In 2023, ICMR-NIV deployed the Mobile BSL-3 laboratory which was validated and developed indigenously under PM-ABHIM and was successfully utilized for the onsite testing and diagnosis.

Also, a global research collaboration was initiated with National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH), USA and National Institute of Epidemiology (NIE), Chennai to test the effectiveness of the m102.4 monoclonal antibodies on Nipah cases.

A research platform involving eleven countries from the South-East Asia Region of the World Health Organization (WHO) was established pooling the expertise and resources to tackle a variety of emerging and re-emerging diseases.

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