

Expert Consultation on Nipah Virus Infection in the WHO South-East Asia Region

15-16 October 2019

New Delhi, India

Meeting Recommendations

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Background

In 2017, Nipah virus (NiV) was declared as one of the World Health Organization's top eight emerging pathogens. Nipah virus (NiV) infection is a newly emerging zoonosis first identified during an outbreak of disease that occurred in Kampung Sungai Nipah, Malaysia in 1998. Since then, outbreaks have occurred causing human infections in Malaysia, Singapore, India and Bangladesh.

In WHO's Southeast Asia Region (SEAR), a geographically distinct NiV strain independently emerged in India in 2018 and 2019 as well as in Bangladesh causing human NiV cases.

Against the background of appearance of Nipah outbreaks in Member States in the WHO Southeast Asia Region, a need has arisen for the WHO to take the lead in developing a comprehensive framework for combatting Nipah in the region and in this context to ensure availability of evidence-based guidance to Member States for effective implementation in an event of an outbreak.

The suggested framework should be based upon the regional needs, priorities and current gaps identified by a multi-disciplinary expert group that should include experts beyond human health given that NiV is a zoonotic disease, and behavioral, sociological and anthropological components are equally important to ensure the effectiveness of the interventional strategies to combat the disease. These experts will consider the work done so far and ongoing efforts at the regional and global level in formulating the roadmap for SEAR to address needs, priorities and gaps.

Objectives

The above approach will highlight the need for an expert consultation. The broad objectives of such a consultation would be:

1. To appraise global and regional experience and good practices for their relevance in Nipah virus infection prevention and control in SEAR
2. To advise the Regional Director on regional needs, priorities and gaps in combatting Nipah virus infections and
3. To provide recommendations to develop a road map towards combatting Nipah virus infection in SEAR including. Conducting priority research related to Nipah virus infections prior to, during and post Nipah outbreaks

Composition of the Expert Committee

The meeting was attended by 24 experts specialized in 10 thematic areas. They were from India, Bangladesh, Malaysia, Thailand, United States of America, United Kingdom. The secretariat was represented by WHO staff from WHE, CDS departments in SEARO and the WHO Country Office for India.

Key outcome of the Expert consultation:

Experts provided a list of recommendations in 10 thematic areas for developing a roadmap for combatting Nipah Virus Infection in WHO's Southeast Asia Region.

Recommendations

1. Understanding socio-ecological aspects of Nipah virus

For Member States

- Build on existing /previous studies on bats to conduct further studies in collaboration with multiple sectors and centres of excellence to answer research gaps on human and bats interface.
- Consider establishment of human and bat surveillance in countries/regions where there are no human Nipah cases, but bats, virus and potential bat-human-livestock interfaces exist.
- Plan and conduct in-depth socio-anthropological studies to describe dynamics of Nipah virus disease from social and ecological perspectives in order to understand local perceptions on Nipah Virus disease to effectively plan for actions on human behaviours to prevent spillovers and human to human transmission.

For WHO

- Facilitate collaboration for research through Regional Platforms *** for Emerging Infectious Diseases of Public Health Importance.

*** South-East Asia Regional Knowledge Network for IHR NFP+, Regional Research Platform etc.

2. Policy, strategy and regulatory capacity

For Member States

- Leverage IHR to improve core capacities for public health preparedness and response for various diseases of epidemic/pandemic potential including Nipah virus.
- Develop, implement and test national prevention and control plans for Emerging and Re-emerging infections such as Nipah virus infections with linkages to relevant critical plans such as National Action Plans on Health Security (NAPHS), national emergency preparedness and response and national IHR plans.
- Understand regulatory requirements and work with the regulatory agencies to ensure access and availability of public health medical counter measures (import, development, clinical trials etc.) required for responding to Nipah outbreaks.

For WHO

- Provide technical support to countries to develop and implement policies and national Nipah virus prevention and control plans linked to NAPHS upon request.

3. Laboratory diagnosis

For Member States

- Establish implement and monitor national and regional laboratory surveillance standards for prompt and accurate diagnosis of Nipah virus.
- Consider plans for: 1) enhancing the capacity of the national, sub-national /de-centralized laboratory capacity, 2) improved access to specialized laboratories within and outside countries as needed, and 3) deployment of mobile laboratories.
- Establish a national laboratory network with a national reference laboratory and work with the WHO and OIE to mobilize the support of a Regional Reference Laboratory (RRL) of Nipah leveraging specific capacities of regional laboratories.

For WHO

- Promote, support and facilitate capacities that allow deployment of the WHO's Research and Development Blueprint in areas pertinent to laboratory diagnosis

4. Clinical diagnosis and case management

For Member States

- Improve efforts to strengthen surge capacity of health facilities, isolation areas, infection prevention and control practices, intensive care for managing Nipah patients to ensure surge capacity in outbreaks.
- Facilitate access and participation of clinicians to regional and international knowledge networks.
- Establish evidence based guidelines and protocols such as: 1) national guidelines on clinical management, infection prevention and control and follow-up, 2) standard treatment protocols 3) criteria for referrals to specialized centres and 4) guidance for collection of clinical data on specialized populations (pregnant women, children, marginalized communities) and linking to national Nipah virus infection surveillance.
- Develop and implement coordination and communication mechanisms for cross-sharing of data with animal health sector for facilitating and improving clinical diagnosis and management of Nipah virus infections.

For WHO

- Support country experts to collaborate through regional and international knowledge networks.

5. Research and development

For Member States

- Profile the risk of Nipah virus infections and plan for research in areas of concern (e.g. post-mortem studies, ecological, socio-anthropological studies).
- Identify common research challenges and work together for holistic multidisciplinary solutions to address these challenges.
- Support RESEARCH (the SEA Regional Research platform) activities on Nipah virus disease or Member States.

For WHO

- Support expansion of socioeconomic, ecological and health systems research to prevent and control Nipah in the region and conduct Nipah related research prior to, during and recovery phase of Nipah outbreaks.

6. Surveillance, alert detection and response to Nipah outbreaks

For Member States

- Develop national surveillance standards, surveillance strategies protocols and guidelines that are adaptable to sub-national context (active, passive, event based are different options) including at animal-human interface.
- Align surveillance strategies in different at-risk parts of the region and support these with standard surveillance case definitions, standard laboratory algorithms and geographical risk profiles, linking human surveillance with animal and wildlife (bats) (One health surveillance).
- Support and guide surveillance efforts with evidence from periodic surveys including identification, distribution and burden of risk factors.
- Periodically evaluate Nipah surveillance systems to estimate sensitivity, specificity, usefulness and performance.

For WHO

- Provide technical support where appropriate and needed to improve surveillance for Nipah virus disease.
- Develop regional surveillance standards, surveillance strategies protocols and guidelines that countries can adapt to their national/sub-national context.

7. Behavioural changes for modification and reduction of risks in the local context

For Member States

- Strengthen links between social scientists, public health practitioners, clinicians, community and integrate social science approaches at every stage of outbreak preparedness and response including risk communication in situations of uncertainties of scientific knowledge that are inherent in an evolving field.
- Incorporate and build positively on local knowledge and social protocols into response strategies, considering the social, political and community perceptions to understand dynamics of a disease (before during and after an outbreak); balancing human rights with disease control aims.
- Strengthen capacity for rumor detection, analysis and management.

For WHO

- Promote capacity building for risk and behavior change communication and community engagement for public health emergencies, considering sociocultural dimension of emerging infectious diseases including Nipah virus infections.

8. Health system capacity and readiness for detection and response to Nipah outbreaks

For Member States

- Continue to invest and strengthen IHR core capacities with the aim of installing these capacities in health systems components (e.g. health policies, services, multi-disciplinary health and non-health workforce, Reference Laboratories) at national and sub-national level.
- Develop and continuously build capacity of a multi-disciplinary health workforce through a clear strategy, plans, innovative approaches so the health system is prepared for, capable of responding and can recover from any public health event.

For WHO

- Continue to advocate and support implementation of the Delhi Ministerial Declaration on Emergency Preparedness in September 2019 adopted at the South-East Asia Regional Committee.

9. One health approach

For Member States

- Establish a functional One Health Secretariat with defined roles and responsibilities of stakeholders for improving coordination and policies for surveillance, prevention, mitigation and control of high threat pathogens (including Nipah) at the human-animal-environmental interface.
- Establish One Health mechanisms at sub-national level facilitating actions for preparedness [e.g., simulations, planning, training one health workforce etc. (e.g. FETP, FETP-Vet)] and response.
- Establish systems that enable deployment of multidisciplinary outbreak investigation teams e.g. Rapid Response Teams) including joint training using One Health approach.

For WHO

- Advocates promote and facilitate “One Health” mechanisms within health systems for high threat pathogens including Nipah virus and strengthening of “One Health” collaborations among stakeholders.
- Support operationalization of “One Health” mechanism at country level through various activities for capacity building (e.g. National IHR/PVS Bridging Workshop, joint risk assessment, training and workshops).

- Leverage the regional tripartite secretariat (WHO/OIE/FAO) for scaling up one health approaches in countries including, sharing good practices and lessons learnt.

10. Medical countermeasures (Therapeutics, diagnostics, vaccines) for Nipah virus infections

For Member States

- Engaged in discussions to conduct therapeutic trials for example clinical trials (phase I and II) on potential vaccine candidates in populations and areas affected by Nipah virus circulation as per national drugs development regulations.
- Support exploratory studies using animal models for establishing correlates of protection (neutralizing antibodies, ELISA antibodies, cell-mediated immunity) for each candidate vaccine and transferability to humans.
- Review existing regulatory laws specifically for high-threat and novel life-threatening pathogens requiring expedited process of development of life-saving drug molecules and vaccines.
- Contextualize and adapt the protocol developed by NIH/NIAD/ICMR/WHO for monoclonal antibodies

For WHO

- Promote, support and facilitate capacities for public-private partnerships on medical countermeasures aligned with the WHO Research and Development (R&D) Blueprint.

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