



Government of Nepal
Ministry of Health and Population
Department of Health Services
Epidemiology and Disease Control Division

Testing Algorithm for Nipah Virus (Interim)

Suspected Nipah case

Death or Rapid deterioration of a case presented with Fever and Respiratory distress 'OR' Fever and altered sensorium 'AND'
with epidemiological linkage (such as drinking raw date palm sap, contact with infected animals, particularly fruit bats, history of travel to Nipah-endemic areas (e.g., Bangladesh, West Bengal, and Kerala in India)

Probable Nipah Case

Death case 'OR' Severe Acute Respiratory Infection (SARI) 'OR' Acute Encephalitis Syndrome (AES)
'AND'
is a known contact of a confirmed Nipah case

Admit in Hospital isolation (formerly COVID-19 designated hospitals) with respiratory and contact precautions (PPEs)

Inform EDCD and NPHL focal points with detail case investigation

Collect samples with respiratory and contact precaution (PPEs)

- Collect the following samples:
- Throat swab in VTM (inactivated)
 - Blood in red vacutainer (4ml)
 - Urine (5ml) in sterile screw capped bottle
 - CSF (1-3ml) if collected as part of case management

Sample transportation to NPHL with triple packaging under biosafety standards and cold chain maintenance at 2-8° C
(Follow "National Guideline for Sample Collection and Transportation during acute public health events, 2025")

Receive the samples at NPHL

Process sample (from aliquoting to inactivation process) at the high containment laboratory in NPHL following appropriate PPE and Biosafety precautions

Extract viral RNA from Throat swab, Blood, Urine and CSF specimens

Test RNA extract from Throat swab, Blood and CSF for NIPAH VIRUS real time PCR

POSITIVE

Re-testing at CVL for Nipah by real time PCR for reconfirmation
**Note: This is only required for the first case in the country. Later CVL can be used for periodic inter laboratory comparison of Nipah testing at NPHL.*

Report results to EDCD

NEGATIVE

Test **urine sample** for Nipah PCR

POSITIVE

NEGATIVE

- Throat Swab for Respiratory panel by PCR,
- Blood for Leptospirosis PCR, Scrub typhus IgM,
- CSF for CNS pathogens PCR/IgM