

National centre for Disease control, 22, ShamNath Marg, Delhi-54

Sample Collection and Transport Guidelines for laboratory diagnosis of Nipah virus infection

Nipah virus being a **BSL-4 agent**, universal, standard droplet and bio-containment precautions should be followed during contact with excretions, secretions and body fluids of suspected patient. Adequate biosafety precautions should be adopted during collection/transport/ storage/ processing of clinical samples from suspected cases.

Sample collection: The samples should be collected as early as possible (preferably within 4-5 days on onset of illness) with all biosafety precautions and accompanied with detailed history of patients on the performa which can be obtained from the testing laboratory (Presently **National Institute of Virology, Pune** in public sector is the testing laboratory which is diagnosing Nipah virus infection based on **molecular detection of viral RNA** and **IgM antibody detection by ELISA test**).

During sample collection wear complete disposable Personal Protective Equipments (N 95 mask, double surgical gloves, gowns, goggles etc). Wash hands with soap and water at least for 30 seconds and then clean hand using 1-2 ml of alcohol based hand sanitizer before and after collection of samples.

The samples may be as follows

- Throat swab to be collected in viral transport medium
- Urine approx 10 ml in universal sterile container
- Blood in plain vial (at least 5ml)
- CSF (at least 1 ml) in a sterile container

Transportation and Storage of samples: Samples should be safely packed in triple container packing and should be transported under cold chain (2-8°C) to the testing laboratory with prior intimation. Before dispatching the sample, disinfect the outer surface of container using 1:100 dilution of bleach or 5% Lysol solution.

Sample containing vials should be kept in good quality plastic bags tied with rubber bands so that inside material if leaks should not come out of bag. The plastic bag should be kept in another container which should be sealed with adhesive tape. This carrier should be placed in another plastic bag sealed with rubber bands and placed in thermocol/vaccine carrier containing ice. The case sheets with complete information should be placed in plastic bag and should be pasted outside the container.

Samples should be transported at 2-8°C if they arrive at the laboratory with 48 hours; if shipping time is expected more than 48 hours, the samples should be sent using dry ice. Samples should not be held at -20°C for long periods. The sample must be stored at – 70°C if storage is required for longer periods.

For further reading: www.ncdc.gov.in/WriteReadData/1892s/File572.pdf (Biosafety manual)