



Rabies: Ante-mortem & Post-mortem Specimen Collection Guide

Ante-mortem specimens

Suitable ante-mortem specimens for rabies testing include saliva, nuchal skin biopsy and cerebrospinal fluid (CSF). Submitting a full range of specimens for a suspected rabies cases is recommended.

Post-mortem specimens

It is important to conduct laboratory investigations on persons who died from a suspected rabies virus infections. A brain specimen is the preferred specimen, which may be conducted by a Forensic Pathologists. However, if not available, clinicians may obtain a post-mortem nuchal skin biopsy for rabies diagnosis.

Saliva specimens

- o Collect at least 500µl of saliva into a universal specimen container – often easiest using a syringe or suction device. Sputum is not an acceptable specimen.
- o If possible, collect 3 specimens in total: 1 specimen daily on 3 consecutive days (not 3 specimens on the same day).

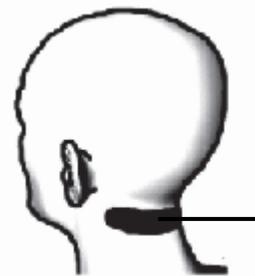
CSF specimens

- o Collect at least 500µl of CSF.

Nuchal skin biopsy

section of skin, 5-6 mm in diameter and ≈5-7 mm depth, must be taken from the nape of the neck (Figure). It is important that specimen contained hair follicles and should be of sufficient depth to include the cutaneous nerves at the base of hair follicles.

1. Collect the skin biopsy. This can be done as an excision or punch biopsy.
2. Moisten a piece of gauze with saline or water.
3. Place the skin biopsy onto, and cover with, a piece of moist gauze.
4. Place the gauze with the biopsy into a screw-top container.



Nape of the neck

Figure: Location of the nape of the neck

Brain specimens

- o Whole, half or sections of the both the cerebellum and the cerebrum may be submitted.
- o Place the specimen in a skrew top container and submerge the specimen in 50% glycerol saline (half volume glycerol and half PBS). If glycerol saline is not available: freeze and send ASAP. DO NOT place in formalin.

Transportation

- o The specimens should be packaged in accordance with the guidelines for the transport of dangerous biological goods (triple packaging using absorbent material) and transported directly to:

Special Pathogens Unit
National Institute for Communicable Diseases (NICD)
National Health Laboratory Service (NHLS)
No. 1 Modderfontein Rd
Sandringham, 2131
Gauteng, South Africa

- o Keep the specimen cool and send ASAP.
- o ALL specimens should be labelled AND accompanied by a fully completed Suspected Human Rabies Case History Form.

Please inform the NICD-NHLS Hotline (082-883-9920), which is a 24-hour service for all healthcare professionals countrywide, when submitting specimens for rabies diagnosis. Please note that the NICD-NHLS Hotline is NOT a service for the general public. General public should contact the Department of Health for any queries.