

GUIDELINES FOR SENDING SAMPLES TO HSADL, BHOPAL FOR DIAGNOSIS OF CCHF

Before contact with the suspected animals for sampling use of repellents on the skin (e.g. DEET) and clothing (e.g. permethrin) and wearing protective clothing to prevent skin contact with infected tissues or blood is prerequisite.

Who are at the risk?

1. Veterinary doctors are at risk of acquiring infection from sharps injuries during surgical procedures
2. Farmers may castrate, dehorn, attach ear tags or immunize the young animals, and thus expose themselves through getting infected blood onto broken skin.
3. Tick infested animals pose an additional threat to abattoir workers, as partially engorged ticks tend to detach from their hosts after slaughter, or from the hides and skins of the hosts, and may then attach to any humans in the vicinity.

Primary hazards:

1. Droplet exposure of the mucous membrane to infective blood; aerosols; accidental parenteral inoculation.
2. Ticks that detach from hides and skins at slaughterhouses, after their engorgement has been so rudely interrupted, will sometimes attach to whatever is available, and this constitutes another hazard for abattoir workers.

Precautions while collecting samples:

1. Using barrier-nursing techniques is imperative with suspected or confirmed CCHF.
2. Sharps (needles and other penetrating surgical instruments) and body wastes should be safely disposed.

Transportation:

All samples suspected for CCHF should be sent to HSADL with personnel messenger only.

The safest method of transporting samples is using triple layer container and cold chain should be maintained throughout the period. However, in the areas where obtaining such container is difficult the samples can be sent as follows:

1. The case sheets with complete information about the samples should be completely filled in Case report Form (separate sheet) and provided along with the samples. The information should necessarily include the details of source, location and date of collection.

2. The blood sample [Serum or plasma or blood in EDTA] should be kept in screw cap plastic vials, with proper label. Ticks should be collected in screwcap plastic containers. The ticks from a single location/source may be pooled together.
3. The sample containing vials should be kept in good quality plastic bags which should either be sealed by heat or tied with rubber bands so that inside material, if leaks, should not come out of the bag.
4. This plastic bag should be placed in another plastic container that should be sealed with adhesive tape. This container should then be placed in another plastic bag sealed with rubber bands and be placed in a thermocol or vaccine container containing ice.
5. If plastic container is not available then good quality of double plastic bags can be used.
6. The case sheets with complete information should be placed in a plastic bag or envelop and be pasted outside of the thermocol or vaccine container.
7. Person handling the sample should wear gloves and a gown, to avoid direct contact with the infectious material. After completing the packing of samples, person should thoroughly wash hand with soap and water.
8. Before dispatching the container, Bleach can be used for disinfection. A 1:100 dilution of bleach or 5% Lysol solution should be used to clean the outer surfaces of the container.

In view of the fact that CCHFV is a high-risks zoonotic pathogen the guidelines prescribed by OIE for collection and shipment of diagnostic samples should be strictly followed. The link for the guidelines is as below:

http://www.oie.int/fileadmin/Home/eng/Animal_Health_in_the_World/docs/pdf/1.1.01_COLLECTION.pdf

Links to Detailed Information Resource on Crimean-Congo Hemorrhagic Fever:

1. Pathogen Safety Data Sheet for CCHF.
(<http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/crim-congo-eng.php>)
2. CCHF Factsheet.
(http://www.cfsph.iastate.edu/Factsheets/pdfs/crimean_congo_hemorrhagic_fever.pdf)
3. Quick reference guide on CCHF.
([http://www.nrt.org/production/nrt/nrtweb.nsf/3cb9a6ef643b6e3685256ede006ef73a/db1d14e91e413849852574cd007db1b1/\\$FILE/08Bunyaviridae-CrimeanCongoHemorrhagicFever\(CCHF\)QRG.pdf](http://www.nrt.org/production/nrt/nrtweb.nsf/3cb9a6ef643b6e3685256ede006ef73a/db1d14e91e413849852574cd007db1b1/$FILE/08Bunyaviridae-CrimeanCongoHemorrhagicFever(CCHF)QRG.pdf))
4. Additional information on CCHF.
(<http://niv.co.in/CCHF.pdf>)