Early identification and prompt, effective communication are critical for managing the risk associated with this agent in the VTH. All personnel should be aware of the status of high-risk patients and potentially contaminated materials or environments. Suspects should be isolated, barrier nursing should be used, & personnel contact should be restricted.

Please contact VTH Infection Control Personnel if you have any questions about these policies and procedures.

Quick Facts
- Refer to Rabies in sections V and VII of the Infection Control and Biosecurity SOP for more comprehensive information.
- Early identification, effective communication, and preventing exposure to people and other animals are essential for effective management of suspected rabies cases.
- Only vaccinated employees should be involved in management of patients recognized as having a high risk of rabies infection. Students and volunteers should not contact these patients or their environments.
- Human exposures to rabies are very serious events and extreme caution is warranted to prevent occurrences.
- Rabies exposures do not require emergency intervention; rather these exposures represent a medical urgency. There is time for careful assessment of risks, communication with experts, and development of logical intervention plans.
- Over-reaction should not be allowed to overwhelm good judgment and lead to the euthanasia of animals with a very low risk of infection.
- Rabies cases are “typically atypical” in clinical presentation, meaning that signs are highly variable and any neurological sign can be an indication of rabies infection.
- Marked improvement in the patient’s condition and survival through the 10-day isolation and observation period are NOT consistent with a diagnosis of rabies.

Case Definition and Management of Patients Suspected of Rabies Virus Infection

- Patients with a High Risk of Rabies Infection
  - HIGH RISK PATIENTS: Those with a known exposure to infected animals (e.g., those with bite wounds obtained during an unprovoked attack by a wild carnivore) OR unvaccinated animals with suspected exposures.
  - Ancillary testing and evaluation is strongly discouraged in these patients until rabies has been ruled-out because of the potential for unnecessary human exposures.

- Patients with a Low Risk of Rabies Infection
  - LOW RISK PATIENTS: Rabies is considered a reasonable differential diagnosis because of the history and clinical signs, but there is no known or suspected exposure to infected animals.
  - Ancillary testing and evaluation should be restricted to those that are necessary for patient stabilization.

- A healthy domestic dog, cat, or ferret that bites a person should be managed in consultation with CDPHE by confinement and observation for a minimum of 10 days – if signs suggestive of rabies develop, it may be required that the animal be euthanized and examined for rabies.
- The 10-day observation period only applies to domestic dogs, cats and ferrets that have bitten a human. It does NOT apply to animals exposed to rabies (e.g., pets attacked by a wild animal or found with a bat). Pet animals or livestock potentially exposed to rabies must be immediately reported to CDPHE.

Personnel involved in management of a high or low risk case MUST consult with the Colorado Department of Public Health and Environment (303-692-2700 or 303-370-9395 after business hours) to ensure the management plan is appropriate.

The clinician in charge of the case must maintain a list (contained within the medical record) of all VTH-personnel that have contact with the animal. Available at http://csu-cvmbs.colostate.edu/documents/vth-biosecurity-zoonotic-disease-contact-log.pdf

*Immune compromised people should always take greater precautions, as they are susceptible to infections that the general population is not.
Procedures, Isolation, Barrier Precautions, and Patient Movement

- Rabies suspects must be housed in isolation – unless permission is received from Infection Control Personnel.
- Barrier nursing precautions must be used when working with rabies suspects or their environment – this includes gloves, barrier gowns, face shield, or masks and eye protection. N95 respirators are not required.
- Conspicuously label the cage or stall with a sign – “RABIES SUSPECT, DO NOT HANDLE”
- Minimize treatments and personnel handling the patient

Communication Within the VTH

- Whenever patients are identified as rabies suspects or considered to be high-risk suspects, an email notification must be sent to the “Alert” listserv: VTH-Contagious-Dz-Alert@colostate.edu
- The veterinarian responsible for the patient’s care should personally communicate the situation to the supervising clinician, supervising nurse, head of Animal Care, and any students contacting the case regarding patient status, special cleaning requirements, and transmission risk.
- Use “Special Attention Required” sticky notes to facilitate effective communication to VTH and VDL personnel.

Diagnostic Testing of Suspected Rabies Cases

- All rabies suspects that die or are euthanized must be tested at the CSU-VDL to confirm or rule-out rabies infection.
- Using barrier nursing precautions – place carcass in a plastic bag and label conspicuously: “RABIES SUSPECT”. Disinfect the outer surface prior to transport to the VDL for diagnostic testing.
- Clearly indicate on history and submission forms that the animal is a rabies suspect.

What Constitutes a Human Rabies Exposure?

- Rabies exposure is not a medical emergency; rather it is a medical urgency.
- All bite wounds inflicted on a person should be immediately cleansed with an iodophor or chlorhexidine scrub and water.
- What were you exposed to?
  - Rabies virus is transmitted through saliva and brain/nervous tissue – contact such as petting and handling, or contact with blood, urine, or feces does NOT constitute an exposure.
- What type of exposure occurred?
  - Rabies virus is only transmitted when the virus is introduced into a bite wound, open cuts, or onto mucous membranes. Infected animals generally do not shed virus in saliva prior to the onset of clinical disease.
  - Bite Exposure – Any penetration of the skin by teeth. All bites represent a potential risk of rabies transmission.
  - Non-Bite Exposure – Contamination of open wounds, abrasions, mucous membranes or scratches with infectious material, especially from bats. Non-bite exposures from terrestrial animals rarely causes rabies.
- Vaccination status of the rabies suspect animal?
  - A currently vaccinated dog, cat, ferret, horse or cow is unlikely to be infected with rabies.
- What type of animal did you have contact with?
  - The type of animal you were exposed to affects your risk of rabies. Consult with the CDPHE to determine if an exposure occurred.

Special Attention Required

- ALL PERSONNEL: Contact the CDPHE to evaluate the exposure risk and determine if post-exposure prophylaxis is necessary. (303-692-2700 or 303-370-9395 after business hours).
- EMPLOYEES: See details provided in Section I of the Infection Control SOP regarding necessary processes for seeking medical care that will be covered by Workman’s Compensation.

Cleaning Precautions

- Use standard cleaning and disinfection protocols.
- Rabies virus becomes non-infectious by desiccation and ultraviolet irradiation – if contaminated material is dry it is non-infectious.
- Rubber gloves should be worn when cleaning housing areas.

Additional References:
http://www.cdc.gov/Rabies
http://www.cdphe.state.co.us/dc/zoonosis/rabies
http://www.cfsph.iastate.edu/DiseaseInfo/disease.php?name=rabies