EXPOSURE TO A SUSPECTED RABID ANIMAL

Disease Overview

Rabies is caused by a virus (genus *Lyssavirus*, family Rhabdoviridae). Rabies is spread when virus in the saliva of an infected animal enters the body through a bite, scratch, broken skin, the mucous membranes or the respiratory tract. The virus gains access to the central nervous system and causes fatal encephalitis. Bites from an infected animal are the main route of exposure. To prevent human deaths, potential exposures to the rabies virus are assessed and if recommended, publicly funded vaccines and biologics provided (post exposure prophylaxis or PEP).

The prevention and control of rabies in NB requires a collaborative approach involving other departments in the Government of New Brunswick, Regional Health Authorities (RHAs) Non-Governmental Organizations, such as the NBSPCA and partners such as the New Brunswick Veterinary Medical Association (NBVMA) and the New Brunswick Medical Society (NBMS).

This guideline includes information related to the management of a human exposure to a suspected rabid animal and includes a physician risk assessment, reporting exposure to a suspected rabid animal, measures of a Public Health (PH) risk assessment, Regional Medical Officer of Health (RMOH) reassessment of risk, PH follow up for positive animal test results, and associated forms.

Public Health RMOH Physician Rabies Risk Assessment Risk Assessment Reassessment of Risk Ten day Observation Period Consider Rabies PEP in every Report Rabies Initiate or incident of **Exposure Testing** Obtain complete human to a additional PEP or exposure Suspected information Veterinarian discontinue Locate to Rabid **Evaluation PEP** potentia<u>lly</u> Anima Animal rabid animal

Management of Exposure to a Suspected Rabid Animal

Physician Rabies Risk Assessment

Rabies PEP must be considered in every incident in which human exposure to potentially rabid animals has occurred, unless rabies is known to be absent from the local animal population. If there is no exposure PEP is not recommended as transmission of rabies is highly unlikely unless an exposure has occurred.

Types of exposures can be considered in three broad categories: bite exposures, non-bite exposures and bat exposures as follows:

- **Bite exposure**: A bite is defined as any penetration of the skin by teeth. Bites inflicted by most animals are readily apparent with the exception of bats. Bites inflicted by bats may not be felt and may leave no visible bite marks (refer to Bat Exposure).
- **Non-bite exposure**: Non-bite exposures, other than organ or tissue transplants, have almost never been proven to cause rabies, and post-exposure prophylaxis is not indicated unless the non-bite exposure involves saliva or neural tissue being introduced into fresh, open cuts or scratches in skin or onto mucous membranes.
- **Bat exposure**: Post-exposure rabies prophylaxis following bat contact is recommended when **both** of the following conditions apply: there has been direct contact with a bat, and a bite, scratch, or saliva exposure into a wound or mucous membrane cannot be ruled out. Direct contact with a bat is defined as a bat touching or landing on a person. In an adult, a bat landing on clothing would be considered reason for intervention only if a bite, scratch or saliva exposure into a wound or mucous membrane cannot be ruled out. In a child, a bat landing on clothing could be considered a reason for intervention, as a history to rule out a bite, scratch or mucous membrane exposure may not be reliable. When a bat is found in the room with a child or an adult who is unable to give a reliable history, assessment of direct contact may be difficult.

Factors to consider in the physician rabies risk assessment and consideration of PEP include: species of animal, prevalence of rabies in that species, prevalence of rabies in other species in the area, type of exposure, circumstances of exposure, behaviour and vaccination status of a domestic animal, location and severity of bite, and age of exposed person.

Consider Rabies PEP in every incident of human exposure to potentially rabid animal

Typically, Regional Health Authority (RHA) Emergency Room physicians conduct a physician rabies risk assessment and provide recommendations for PEP – either PEP is recommended or PEP is not recommended. Treating physicians may request advice from PH and RMOH before making their decision.

Risk assessment information is further detailed in the following:

- 2023 physician Rabies Risk Assessment Guidelines <u>9184e-final.indd (qnb.ca)</u>
- NB New recommendations for rabies post exposure prophylaxis of immunocompetent persons previously unimmunized with rabies vaccine
- Canadian Immunization Guidelines

NB Immunization Program Guide

Reporting Exposure to a Suspected Rabid Animal

Situations where the physician rabies risk assessment leads to a recommendation for PEP (either initiated or deferred) must be reported to PH. Situations where PEP is not recommended are not reportable.

Rabies biologicals (immune globulin and vaccine) are provided by Regional Health Authorities (RHAs). Prophylaxis is either initiated immediately in the Emergency Room with completion of vaccine series as per agreement with PH, or is deferred pending additional investigation and the outcomes of associated actions, for example PH ten day observation period or rabies testing.

During routine business hours, RHAs report per usual processes and by faxing the completed *Hospital Report of Human Exposure Suspected Rabid Animal and Post Exposure Prophylaxis Recommended* form. During afterhours RHAs report per usual after-hour processes to PH and faxing of completed form.

Report
Exposure to
a
Suspected
Rabid
Animal

Public Health Risk Assessment

Upon receipt of an RHA report (Hospital Report of Human Exposure Suspected Rabid Animal and Post Exposure Prophylaxis Recommended form) with a recommendation for PEP (either initiated or deferred) PH conducts an investigation to obtain more information.

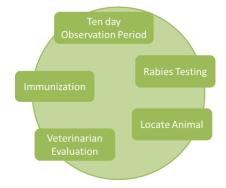
The PH risk assessment will determine the appropriate next steps and the timeliness of any required actions. Information gathered initially and during the investigation will influence the management of the exposed person(s) and PEP recommendation(s). Depending on the information gathered, a physician reassessment of risk and recommendation for PEP may be required. The reassessment of risk is usually done by RMOHs, in consultation with referring physician(s) as necessary; see section **RMOH Reassessment of Risk**.

In addition to RHA reports of a human exposure to a suspected rabid animal, there are also a variety of ways PH may become aware of potential exposures. All situations will need to have a risk assessment related to the exposure to the suspected rabid animal; consult with RMOH and see section **Physician Rabies Risk Assessment**.

Completion of a PH risk assessment is a collaborative effort between RHA Public Health and Health Protection Services (JPS). Situations where PEP was initiated are usually referred to PH nurses who contact the exposed person to arrange immunization. Situations where PEP is pending additional investigation are usually referred to PH Inspectors who contact the exposed person and/or animal owner to obtain more information. Documentation of the PH risk assessment investigation is per the *Public Health Risk Assessment Exposure to a Suspected Rabid Animal* form.

As part of a PH risk assessment, one or more of following measures may be required. They may not occur in the order presented and information obtained regarding one measure may lead to another measure.

- Immunization
- Locate animal
- Veterinarian evaluation
- Ten day observation period
- Rabies Testing



If the individual and/or animal are located in geographic area with federal jurisdiction (e.g. First Nation community or Department of National Defense), PH must contact the appropriate jurisdiction and collaborate to ensure a risk assessment is conducted and any necessary measures are implemented. Federal partners (e.g. Environmental Health Officers, First Nations Inuit Health) are responsible for follow up and must report the results of the investigation to PH or if a RMOH reassessment of risk is required as per usual process.

Immunization

Post exposure prophylaxis is highly effective in preventing rabies in people.

PEP initiated in RHA Emergency Rooms or other jurisdictions, are usually referred to RHA PH nurses for completion of vaccine series. Arrangements for completion of vaccine series is done in a timely manner and accommodates vaccine schedules, including weekends and holidays. For referrals received during late evening hours, contact with the exposed person can be made at a reasonable hour; for example, if a referral is taken at 0200, it is reasonable to wait and contact the person at 0800.

Documentation of administration of all rabies biologicals (rabies immune globulin and/or vaccine) and situational assessment information is per usual PH process. Rabies immune globulin and/or vaccine administered in Emergency Rooms are recorded within 5 working days per usual process. Vaccines administered by RHA PH are recorded within 5 working days per usual process. Upon RHA PH administration of each vaccine, the client is to receive a record of immunization card. Upon completion of the vaccine series, a record of immunization is sent to the client's family physician.

Alternate arrangements can be made by RHA PH, for example completion of vaccine series in FN health centers. For completion of a vaccine series for an individual in First Nations jurisdiction, RHA PH will consult and coordinate with the band nurse and/or the health director to determine who should complete the series. Vaccinations administered in First Nations communities are recorded per usual vaccine administration processes (e.g. FN systems and RHA PH). All clients should receive a record of immunization card.

Other outcomes of a PH risk assessment can influence the management of the exposed person(s). A RMOH reassessment of risk may be required; consult with the RMOH as necessary. See section **RMOH Reassessment of Risk**.

Refer to <u>NB Immunization Program Guide</u> and current <u>Canadian Immunization Guidelines</u> for additional information regarding considerations for rabies immune globulin and rabies vaccines.

Locate Animal

Locating an animal and having the animal available for rabies testing or a ten day observation may determine if the animal had transmissible rabies or not at the time of the bite (or other exposure). Finding an animal or not can influence the management of the exposed person(s). A RMOH reassessment of risk may be required; consult with the RMOH as necessary. See section **RMOH Reassessment of Risk**.

Locating an animal involved in a human exposure where PEP is recommended (either initiated or pending) is a collaborative effort between Government departments and non-government organizations.

Domestic pets and livestock involved in exposures can be evaluated for clinical signs of rabies if the animal can be located; see section **Veterinarian Evaluation**. Dogs, cats, and ferrets can be placed under a ten day observation period if the animal can be located; see section **Ten Day Observation Period**.

Wildlife can be submitted for rabies testing if the animal can be located. Consult with RMOH, the Department of Agriculture, Aquaculture, and Fisheries (DAAF), and others as appropriate. Generally to retrieve a Bat, Raccoon, Skunk, Fox or Coyote the exposed person can contact Telecare 811. To retrieve other wild animal species the exposed person can contact a private nuisance wildlife control operator. The Department of Energy and Resources Development (DERD) website provide a list of Nuisance Wildlife Control Operators or they can be found under Pest Control in the Yellow Pages.

Stray dogs/cats running at large can be evaluated for clinical signs of rabies, submitted for testing, or placed under a ten day observation period if the animal can be located. Consult with others as appropriate. Animal control services may be provided by municipalities or FN communities. Some municipalities and FN communities have animal control bylaws that include dogs; fewer municipalities and FN communities have animal control bylaws that include cats. Depending on the geographic location of the animal and community, contact FN communities' directly, where appropriate, or contact municipal animal control. The Environment and Local Government website provide a list of services available for <u>Local Service Districts or LSDs</u> or services can be found under Local Services listed in the Government of New Brunswick Blue Pages.

The RCMP can destroy animals that are suspected to be rabid in emergency situations (i.e. very aggressive dogs that are presenting an immediate hazard to persons).

Situations that do not have defined processes are dealt by a case to case basis. Consult with RMOH and others, including the Department of Agriculture, Aquaculture, and Fisheries (DAAF) as appropriate.

Veterinarian Evaluation

Veterinarian evaluation of domestic animals or livestock animals can rule out if the animal has clinical signs of rabies or not and this can influence the management of the exposed person(s); a RMOH reassessment of risk may be required; consult with the RMOH as necessary. See section **RMOH Reassessment of Risk**.

A veterinarian evaluation of an animal involved in a human exposure where PEP is recommended (either initiated or pending) is a collaborative effort between Public Health and DAAF. Animals with clinical signs of rabies involved in human exposures should be tested for rabies. See section **Rabies Testing**

During an investigation if information is obtained that a domestic animal or livestock has clinical signs suggestive of rabies, contact DAAF veterinarians. They will provide advice and coordinate a veterinarian evaluation of the animal, in collaboration with an animal owner's veterinarian as necessary.

During a ten day observation period, if the animal owner indicates that the dog, cat, or ferret is ill or has had recent changes in the animal's health or behavior, contact DAAF veterinarians. They will provide advice and will coordinate a veterinarian evaluation of the animal, in collaboration with the animal owner's veterinarian as necessary. Changes in dog, cat, or ferret health or behavior can include an animal not eating or drinking, having trouble swallowing food or water, drooling, having difficulty walking or lameness, or acting more aggressive or more quiet and withdrawn than usual.

Ten Day Observation Period

A dog, cat, or ferret with an early infection of rabies may have virus in its saliva but not show obvious signs of illness at the time of the bite (or exposure). However, clinical signs of rabies will occur within several days. If the dog, cat, or ferret is stills healthy after ten days from the bite (or exposure), then the animal did not have transmissible rabies at the time of the bite (or exposure). Generally, behaviour in wild animals cannot be accurately evaluated and are thus they are not placed under observation periods.

The outcomes of ten day observation periods can influence the management of the exposed person(s). A dog, cat, or ferret may remain healthy, may become ill, may die, or escape during the observation period. A RMOH reassessment of risk may be required; consult with the RMOH. See section **RMOH Reassessment of Risk**.

PEP can be deferred for human exposure to **dogs**, **cats**, **and ferrets that appear healthy** (not exhibiting unusual behavior or signs of illness) that can be observed by a responsible pet owner for 10 days commencing from the time of exposure. A ten day observation period for a dog, cat, or ferret involved in a human exposure where PEP is recommended (either initiated or pending) is a collaborative effort between Public Health and DAAF.

The confinement and observation of a healthy dog, cat or ferret is the responsibility of the animal owner. The observation period starts on the day of the bite (or exposure) and observation can take place at the owner's home, an animal shelter, or a veterinarian's office, depending on circumstances. If available, stray or unwanted dogs, cats, or ferrets should also be confined and observed; see section **Locate Animals**.

PH Inspector contacts the animal owner (via telephone) as soon as possible after the exposure incident, including weekends and holidays, and obtains additional information on the circumstances surrounding the exposure, the animal's usual health and normal behaviour, and ability of the animal owner to reliably confine and observe the animal. The animal owner may or may not be the person(s) exposed. Consider the following to determine the most appropriate type of observation period:

- Animal's usual health and normal behavior. Obtain information related to the animal's usual health and normal behaviour. Ask if there have been any changes in the animal's health and appetite. For example:
 - o Is the animal eating and drinking as it normally does? Is the animal having trouble swallowing food or water? Is the animal drooling more than it normally does?
 - o Is the animal having more difficulty walking than usual? Is there any lameness?
 - o Is the animal acting more aggressive than it usually is (e.g. growling and biting)? Is the animal acting more quiet and withdrawn than it usually is (e.g. hiding)? Does the animal appear more confused than normal? Does the animal appear more agitated than usual and is walking around restlessly?
- If the owner reports changes in the animal's normal health or behavior contact DAAF
 immediately who will provide advice and coordinate a veterinarian evaluation of the
 animal, see section Veterinarian Evaluation.
- Animal available for a ten day observation period
- Ability of an animal owner to reliably confine and observe the animal. The animal should be confined or isolated from other animals and persons, except the person caring for the dog or cat, to prevent potential exposure of others during the observation period. The pet should be kept indoors or in a fenced area and not allowed to roam freely. The animal must not be destroyed, sold, or given away. In cases where the owner requests immediate euthanasia of an animal that appears healthy, contact DAAF. For situations where animal owner is noncompliant, consult with RMOH to determine next steps; if necessary, issue a *Public Health Order for Observation Period*.
- Circumstances of the exposure. Determine if the bite is considered provoked or unprovoked. Provoked bites are when a person surprised, antagonized or threatened an animal or entered its territory. In a low prevalence area for rabies an unprovoked attack is more likely to indicate the animal might have rabies. In areas where canine rabies strains are predominate (Africa, Asia, Latin America and the Middle East) dog bites are high risk. Examples in which the animal bite can be considered as provoked include the following:
 - o attempting to corner or trap an animal
 - o removing food or toy from an animal
 - o hitting an animal
 - o entering an area that the animal considers as its territory
 - o approaching a mother animal with a litter
 - o startling or waking up a sleeping animals
 - o petting or approaching an unknown animal
 - o handling an injured animal or one that is in pain
 - breaking up an animal fight

- Does the animal have a history of up to date rabies immunization? A currently vaccinated animal is unlikely to become infected with rabies. Consult with animal owner's veterinarian as necessary.
- Is the animal allowed to be outside unsupervised, and there may have been contact with wildlife.

Consult with RMOH to determine the type of observation period – no visitation or visitation. For situations where animal owner cannot be contacted, consult with RMOH to determine next steps; a RMOH reassessment of risk may be required.

No Visitation Ten Day Observation Period

The minimum standard is a single telephone contact, Health Protection Services Inspectors (JPS) does not visit location of animal confinement, and includes the following:

- Provide rabies information to the animal owner (verbally or mail pamphlets).
- Explain the importance of and the requirements for animal confinement, as outlined above, during the observation period to the animal owner (or person responsible for observation).
- Advise person responsible for observation of the animal to **immediately notify Health Protection Services (JPS)** if the animal:
 - Becomes ill or dies during the observation period. If this occurs, contact DAAF who
 will provide advice and arrange for veterinarian evaluation or rabies testing of the
 animal. A RMOH reassessment of risk and recommendation for PEP may be
 required.
 - Escapes during the observation period. If this occurs, contact appropriate group to locate animal, depending on the circumstances. If the dog, cat, or ferret cannot be located by ten days after the bite, a RMOH reassessment of risk and recommendation for PEP is required.
- Determine the end date of the confinement period (ten days from the date of the bite or incident).
- If animal owner is noncompliant, implement Visitation Observation Period and issue a *Public Health Order for Observation Period* as necessary.

Visitation Ten Day Observation Period

The minimum standard is an initial telephone contact, two PH visits to the location of animal confinement, all items included under No Visitation Observation Period, and also includes the following:

- Inform the owner that proof of vaccination may be required (records from animal owner's veterinarian).
- Arrange date of first visit as soon as possible after the date of bite (or exposure) and during
 working hours, in consultation with RMOH. Follow the offsite/home visits standard.
 Confirm the health status of the animal and proceed with observation period if it is healthy.

If the visit cannot be arranged during working hours, consult with Regional Director and the RMOH.

- Arrange date of last visit at least ten days from the date of bite (or exposure) and during
 working hours, in consultation with RMOH. Follow the offsite/home visits standard.
 Confirm the health status of the animal and release the animal from confinement if it is
 healthy. If the visit cannot be arranged during working hours, consult with Regional
 Director and the RMOH.
- If animal owner is noncompliant, issue a *Public Health Order for Observation Period* as necessary

Offsite/Home Visits Standard outlines the requirements for PH regarding its role in offsite/home visits for ten day observation periods of dogs, cats, and ferrets involved in a human exposure to a suspected rabid animal. Management will ensure that staff complies with this standard and other existing regional policy in order to promote a safe, healthy, respectful, and effective workplace.

If an offsite/home visit is required, PH staff will:

- Verify that the animal owner agrees to offsite/home visit whenever possible.
- Request animal owner that during the offsite/home visit:
 - No one smoke in the house during the visit;
 - o Animal under observation and all other pets be put in another room behind a closed door, in a kennel or kept securely on a leash;
 - Efforts are made to minimize distractions, such as turning off the television and avoiding phone conversations/texting, during the visit; and
 - The number of people present at the visit should be limited.
- If considered necessary, PH can arrange to have DAAF staff accompany them for offsite/home visits. The buddy system procedure where two persons operate together is used to improve safety for staff.
- Ensure Regional Director (or RMOH) is aware of the planned time for and completion of all offsite/home visits. This ensures appropriate follow-up will occur if PH staff do not return as planned.

Rabies Testing

Testing an animal determines if the animal has rabies or not. The outcomes of rabies testing can influence the management of the exposed person(s). A RMOH reassessment of risk may be required; consult with the RMOH as necessary. See section **RMOH Reassessment of Risk**.

Rabies testing on suspected rabid animals involved in a human or domestic animal exposure is done by the New Brunswick Provincial Veterinary Laboratory (PVL), 850 Lincoln Road, Fredericton. There are multiple routes for submission of specimens. The objectives are to do this timely so the specimen is suitable for testing and safely for the person retrieving the specimen.

Some wildlife species (bat, raccoon, skunk, fox, and coyote) are retrieved and submitted for testing to PVL by DERD and nuisance wildlife control operators. For other animal species, retrieval and

submission to PVL is coordinated on a case-by-case basis by DAAF in collaboration with the Departments of Energy and Resource Development, Health, Justice and Public Safety and non-government partners, including the NB Veterinary Medical Association. Sometimes PH Inspectors may be required to assist (see Specimen Handling, Packaging and Transportation).

Once an animal is submitted to PVL, suitable brain specimens are sent to the diagnostic laboratory Center of Expertise for Rabies, Canadian Food Inspection Agency in Ottawa. Specimens are usually submitted Monday through Thursday inclusive, except for holidays. The Fluorescent Antibody Test (FAT) detects rabies virus antigen and is the standard diagnostic technique for rabies. FAT results are usually available 24-7, typically 2 hours after the Center of Expertise for Rabies laboratory receives a specimen. Rabies testing is a priority for animals submitted because of a human exposure and the Center of Expertise for Rabies will report test results as available.

If an animal is going to be, or has been, submitted for rabies testing as part of a Public Health Risk Assessment, Public Health Inspectors must provide necessary information directly to DAAF to receive the test results (negative and positive). This is for animals being tested as a result of human exposure. PH must provide the following information:

- Name of animal owner, address and contact information, if applicable
- Name of exposed person (s), address and contact information
- Details related to type of exposure, anatomic location of exposure, geographic location where exposure occurred, and date of exposure.
- Name of PH Inspector, Regional Medical Officer of Health and any others who need to be notified of test results.

DAAF Contacts:

DAAF Contact	email	Telephone
Provincial Veterinary Laboratory	Not Available	506-453-5412
DAAF Veterinary Offices Below Have After Hours Answering Services		
Fredericton DAAF Veterinary Office	Not Available	506-453-2210
Wicklow (Florenceville) DAAF Veterinary Office	Not Available	506-392-5101
Bathurst DAAF Veterinary Office	Not Available	506-547-2089
Grand Falls DAAF Veterinary Office	Not Available	506-473-7755
Sussex DAAF Veterinary Office	Not Available	506-432-2001
Moncton DAAF Veterinary Office	Not Available	506-856-2277

Specimen Handling, Packaging and Transportation

Public Health Inspectors may be required to assist with the retrieval and submission of dead animals involved in a human exposure. Employees who have received rabies pre-exposure prophylaxis and training should be tasked with the handling, packaging, and transportation of dead suspected rabid animals for rabies testing.

Pre Exposure Vaccination. Pre-exposure rabies immunization can be provided to individuals with a high risk of exposure to potentially rabid animals or to the rabies virus. High risk individuals may include veterinarians, veterinary staff, animal control and wildlife workers, and laboratory workers exposed to the rabies virus. The protective antibodies from pre-exposure vaccination last for a variable period of time. Serological testing for rabies antibodies are recommended for persons at continuous or frequent risk; for persons who have less frequent risk of exposure or whose risk is likely to be from a recognized source do not require periodic serological testing (Canadian Immunization Guide). Public health inspectors conducting infrequent collection of already dead animals destined for rabies testing would fall into the latter category, and as such you are not required to present evidence of serologic testing for work purposes after your pre-exposure vaccine series.

For person previously immunized who are exposed to a potentially rabid animal and post exposure prophylaxis is required, rabies immune globulin is not indicated and the recommended rabies vaccine doses are administered according to schedule (Canadian Immunization Guide). If a PHI experiences a exposure they are concerned about during the course of animal collection, they should seek medical attention through their health care provider or local emergency room.

Rabies virus is mainly shed in the saliva (drool) of rabid animals. The virus is also found in nervous tissues (the brain and spinal cord) of rabid animals. An exposure to rabies occurs with contact of skin wounds (even small wounds that cannot be seen with the naked eye) or mucous membranes (eyes, nose, and mouth) with infected saliva or nervous tissues. Prevent contact of bare skin and mucous membranes with animal feces, body fluids (urine, blood, and saliva) and body (external parasites). If you have had contact with saliva or nervous tissues from an animal suspected to have rabies, immediately wash the wound with soap and water for at least 10 minutes and seek prompt medical attention.

Donning Process On-Site Prior to Handling and Packaging

Prevent contact of bare skin with animal feces, body fluids (urine, blood, saliva) and body (external parasites). Protective clothing must be removed after handling the suspect rabid animal and properly cleaned and disinfected

Step 1: Put on two pairs of disposable waterproof gloves.

Step 2: Additional protective clothing can be worn as necessary (e.g. disposable coveralls, rubber boots, eye protection glasses), depending on the situation, and removed after handling the animal and properly cleaned.

Specimen Handling and Packaging

If more than one specimen is being submitted, each carcass is packaged separately and each specimen is clearly identified (e.g. name of animal owner, date, type of animal) using a waterproof label that is placed on the double bagged carcass and also on the sealed cooler.

Step 1: Bag carcass. Place the entire carcass in heavy duty puncture resistant leak-proof plastic bag. Dead animals may be picked up with a shovel and placed in a bag. Alternatively, dead animals may be picked up using two bags. To do so, grasp the animal with your hand protected by the bags and turn the bags inside-out over the animal so the animal ends up inside the bags, with your hand on the outside. Securely seal bag.

- **Step 2: Wash gloved hands** using hand sanitizer (min of 68% alcohol). Remove first pair of gloves following proper glove removal procedure and dispose of gloves in biohazard bag. If necessary, remove additional protective clothing (e.g. eye protection glasses, rubber boots, coveralls) and either place in biohazard bag (e.g. disposable plastic coveralls) or in a plastic bag.
- **Step 3: Double bag and insulate**. Place the bagged carcass in a second leak-proof plastic bag. Place several layers of absorbent materials (e.g. newspaper or paper towels) inside the second bag and securely seal second bag.
- **Step 4: Label** the bag so the specimen is identifiable (e.g. name of animal owner, date, type of animal).
- **Step 5: Cooler**. Place double bagged carcass in a sturdy insulated cooler (e.g. styrofoam). Freezer packs, frozen pop bottles or bagged ice (in leak-proof bags, not loose ice) must be placed in the cooler. Securely close the insulated cooler (e.g. tape shut). All containers must be sufficiently sturdy and securely packed and taped to prevent leaks and breakage.

Note for specimens that are kept after hours: Animals must be packed on ice (or kept refrigerated) as soon after death as possible and remain so until they can be delivered to the laboratory. For specimens that are collected late in the day or weekends, please ensure the amount ice or ice packs are adequate or ice and icepacks or ice are renewed as needed to keep the specimen cool so it will not deteriorate. It is preferable NOT to freeze animals for rabies testing.

Doffing Process On-Site After Handling and Packaging

- **Step 1: Wash gloved hands** using hand sanitizer (min of 68% alcohol). Remove second pair of gloves following proper glove removal procedure and dispose of gloves in biohazard bag.
- **Step 2: Wash hands** using with hot water and liquid soap for 5 min or with hand sanitizer (min of 68% alcohol).
- **Step 3: Complete form** *Animal Specimen Submission Form for Rabies Testing.* A completed form must accompany all carcasses.

Specimen Transportation

- **Step 1: Deliver** specimens to the Provincial Veterinary Laboratory, 850 Lincoln Road, Building 700A, Fredericton, NB E3B 5H1. Specimens can be delivered to the laboratory from Monday through Friday (except statutory holidays) between 8:15 and 16:30. Contact DAAF prior to delivery. It is the responsibility of staff submitting the specimen to ensure that specimens collected on Fridays, holidays or weekends are kept cool until they arrive at the laboratory.
- **Step 2: Clean and disinfect**. At the Provincial Veterinary Laboratory dispose of biohazard bag (s). Clean and disinfect coolers and other equipment that may have been exposed to saliva or nervous tissues.

Note: If not at Veterinary Laboratory, items can be first cleaned with soap and water (wear gloves). Disinfect surfaces with a solution of bleach (1 part concentrated bleach to 9 parts water). Leave bleach solution on surfaces for about 15 minutes and then wash with water.

Specimen Retrieval Kit. Ensure you have sufficient supplies in Specimen Submission Kit prior to picking up animal. Supplies include disposable waterproof gloves, disposable coveralls, protective eye glasses, rubber boots, hand sanitizer (minimum 68% alcohol), shovel, heavy-duty leak-proof plastic bags, insulated coolers, packaging materials, ice packs, duct tape, biohazard bags and stickers.

RMOH Reassessment of Risk

Information obtained from PH risk assessments (for example outcomes of ten day observation periods, or biological testing) could influence the management of the exposed person at any time during the investigation. Consult with RMOH. The reassessment of the risk and need for prophylaxis is done by the RMOH, in consultation with the referring physician as necessary. See section **Physician Risk Assessment**.

Initiate or complete PEP or discontinue PEP

If PEP is indicated, arrangements are made at the local level by PH; see section **Immunization**.

PH Follow-up Positive Rabies Tests

Animals can be tested for rabies because of a human exposure and PH Risk Assessment. See section **Rabies Testing**. In addition, there are other scenarios in which animals are tested for rabies and may not be part of a PH Risk Assessment. In these scenarios human exposures are not identified. If they are, the person is advised to seek medical attention and a physician rabies risk assessment.

These scenarios include wild animals tested for rabies and other diseases as part of wildlife surveillance (for example bats). Wild animals tested because of direct physical contact with domestic animals, not people, and concerns about rabies transmission to the domestic animal (for example a dog that fought with a raccoon). Domestic animals and livestock can also be tested for rabies as part of veterinarian diagnostics.

Wildlife surveillance is the responsibility of government departments, for example DAAF and DERD, and non-governmental organizations. The management of exposed domestic animals and domestic animals and livestock with clinical signs of rabies is the responsibility of DAAF. Typically DAAF does a screening test (a direct rabid immunohistochemistry test) and for specimens that have a positive screening test are then sent to the Center of Expertise for Rabies for confirmatory FAT testing. Rabies testing may not be a priority because a human exposure was not identified.

A follow up on positive rabies test results is a collaborative effort between PH and DAAF. On a case by case basis, upon receipt of a positive rabies FAT test result and a human exposure(s) has **not** been identified, PH and DAAF determine who will make a reasonable effort to contact the person(s) involved to communicate risk and determine if any human exposure(s) to the rabid animal occurred.

Questions to consider include but are not limited to the following:

- Where did you see the animal?
- What did you do with the animal?
- Did you ever move the animal?
- Did you ever directly touch the animal?
- Did you wear gloves?
- Were there any cuts or scrapes on your hands (or other body parts) at this time?
- Did you ever directly touch something that would have had the animal's spit or saliva on it?
- Did the animal bite you?
- Did anybody else that you know of touch or interact with this animal?

If a human exposure or possible exposure is identified, the person is advised to seek medical attention and a physician rabies risk assessment, if not already done. The RMOH may consult with referral/treating physicians. See sections **Physician Risk Assessment**, **RMOH Reassessment of Risk and Rabies Testing**.