



## **Guidelines for Animal Contact or Bite Incidences**

**Hay River Community Health Board  
#3 Gaetz Drive Hay River, NT. X0E 0R8**

Rabies is a deadly virus that can affect all warm-blooded animals including humans. In Canada the rabies virus is most often found in wild animals such as foxes, bats, skunks and raccoons. Other animals that have been found to carry rabies include foxes, wild dogs and cats, bats, bears, and domestic animals such as dogs, cats and cattle. The distribution of rabies and the species involved varies significantly across the country and over time.

Compared to other regions in Canada, the NWT has a relatively high rate of positive rabies cases, especially in dogs. The combination of remote communities in close contact with wildlife, a large number of working dogs, and the tendency to tie dogs outside year-round provides a good opportunity for the spread of rabies from wild animals such as foxes to dogs. This in turn results in a significant risk for human exposure to rabies.

Rabies is a federally reportable disease under Canada's Health of Animals Act and Regulations. Agriculture and Agri-Food Canada has the mandate to deal with rabies in animals and the GNWT Department of Health and Social Services has the mandate to deal with the human health implications of rabies in the NWT.

A number of other agencies have an interest and a role in dealing with rabies. A cooperative arrangement has evolved between stakeholders to deal with rabies at the community level.

## **I. Agencies Involved**

### **1. Department of Resources Wildlife and Economic Development**

- Wildlife Disease Specialist
- Renewable Resource Officer

### **2. Municipal Governments**

- Local Senior Administrative Officer
- Local Bylaw or Animal Control Officer

### **3. GNWT Department of Health and Social Services**

- Local Community Health Center or Public Health Office
- Environmental Health Officer
- Chief Medical Health Officer

### **4. Agriculture and Agri-Food Canada**

- Veterinary Inspector

### **5. Private Veterinary Services**

## **II. Roles of Agencies**

### **1. GNWT Department of Health and Social Services**

Department of Health and Social Services is responsible for the human health implications of rabies.

The Environmental Health Officer of the local health board will investigate and follow up on all cases of human and domestic animal exposure to rabies, and makes recommendations in order to prevent rabies exposure in people.

In general this includes the following activities:

1. Investigation of any possible or suspected human or domestic animal exposure to rabies
2. Assessment of the likelihood of human exposure to rabies and advisement of medical staff to facilitate post-exposure treatment
3. Coordinate the quarantine or destruction of an animal if necessary
4. Coordinate the follow up on rabid animals or animals that have been exposed to rabid animals, to ensure their destruction or quarantine

Public Health or Local Community Health centers will administer the post exposure vaccine to patients as is necessary

## **2. GNWT Department of Resources Wildlife and Economic Development**

Department of Resources Wildlife and Economic Development is involved in handling suspect rabies cases involving wild animals. Local Wildlife Officers will destroy suspect rabid wildlife, collect the specimens and ship the samples to the Animal Disease Research Institute, Rabies Unit for analysis.

Under certain circumstances Department of Resources Wildlife and Economic Development may have an interest when the destruction of domestic dogs is ordered, primarily in the case of working or sled dogs

## **3. Agriculture and Agri-Food Canada**

The Health of Animal's Act and Regulations is administered and enforced by Agri-Food Canada. The designated veterinary inspector will direct or issue orders on suspected rabid animals and can be consulted when questions may arise. The veterinary inspector is called upon when orders or directions for quarantine or destruction are not followed.

## **4. Municipal Government**

The local municipality is responsible for providing facilities to quarantine animals suspected of carrying rabies, and for supplying a person to act as the Animal Control Officer for that community. The designated ACO will be responsible for the quarantine and/or destruction of domestic animals, and for reporting any known animal bite incidences to the Environmental Health Officer.

### III. The Rabies Virus

#### 1. Clinical Signs of Rabies

The clinical signs of rabies can vary significantly between animals, but there are a number of signs that occur commonly:

- Animals infected with rabies often act differently than normal
- A shy animal may become friendly or a friendly animal may become timid.
- Wild animals often become tame and lose their fear of people. A wild fox usually wary of people and communities may be seen walking through town in the middle of the day.
- Aggressive behavior is common, and may result in unprovoked attacks on dogs, people or other objects that attract the animal's attention.
- The animal's throat may become paralyzed, causing the animal to stop eating and drinking and appear to "foam at the mouth".
- Near the end of the disease the animal may become weak or paralyzed beginning in the hind end and moving progressively forward.
- All animals infected with the rabies virus will eventually die

#### 2. Seasonal Pattern of Rabies

Most reports of rabies in the NWT occur in the winter months, particularly from March to May. This is related to the seasonal pattern of the fox.

In areas where rabies is well established, like the arctic, a second peak is seen in the fall.

#### 3. Diagnosis of Rabies

The diagnosis of rabies in Canada is conducted by Agriculture and Agri-Food Canada's Animal Disease Research Institute in Lethbridge, Alberta and Nepean Ontario. Rabies testing is done on brain tissue. **Therefore, animals suspected of having rabies and who are being sent for testing should not be shot in the head.**

#### 4. Prevention of Rabies

There is no way to prevent rabies in wildlife. The best defense we have is to protect ourselves and our animals. This is done in the following ways

##### 1. Vaccination

- Animal
  - Vaccination of all pets
- Human
  - Pre-exposure vaccine for high risk occupations, such as an ACO, veterinarian, or wildlife specialist
  - Post exposure prophylaxis given to those people suspected of being exposed to a rabid animal

##### 2. Control of stray animals

- Stray animals may not be vaccinated
- Stray animals have more potential for contact with wildlife
- Stray animals present a direct threat to community members

##### 3. Identification and testing of potential cases

- All animal bites, no matter how minor, should be reported to the local EHO or public health office immediately

##### 4. Public education

#### IV. Responding to an Animal Bite or Animal Contact

The number of animal contact scenarios can vary significantly, and therefore each case must be treated on an individual basis. The following outlines the general procedure for action that should be followed:

1. When an animal bite case is received at a medical center the patient should be treated according to the procedures outlined NWT Communicable Disease Manual
2. The medical staff must fill out the Rabies Investigation Form found in the NWT Communicable Disease Manual.
3. The Animal Control Officer, Wildlife Officer or the Environmental Health Officer must then be contacted to have the animal located.
  - **Contact the Animal Control Officer for domestic animals incidences** (dog, cat, ferret etc.) Every effort should be made by the Animal Control Officer to get the animal under control and put in quarantine. If it is necessary for an animal to be put down then special care must be taken to protect the head from damage
  - **Contact an RWED Wildlife Officer if the animal is wild.** The animal should be put down immediately and prepared for shipping to the Animal Disease Research Institute in Lethbridge.

4. The Rabies Investigation form must then be forwarded to the local Environmental Health Officer immediately who will conduct an investigation and make recommendations to medical staff on treatment and will coordinate quarantine or destruction of the animal and/or shipping of any specimens if necessary.
  5. The investigation by the Environmental Health Officer will include interviews with both the injured person and the animal owner. The investigation will take into account the circumstances of the incident along with the health of the animal including verification of the vaccination status. The investigation will include recommendations for quarantine/destruction of the animal or initiation of the post exposure prophylaxis.
  6. Local Bylaw Officers or Animal Control Officers must either keep animal under quarantine or destroy the animal as per recommendations of the Environmental Health Officer.
- **Under most circumstances quarantine is the preferred method of determining the health of pet animals**
  - **Animals must be kept under watch for minimum of 10 days or until orders from the EHO or Veterinary Inspector are received that the animals is safe to be released**
  - **If an animal successfully gets through 10 day quarantine this does not guarantee that the animal is not infected with the rabies virus but only that the animal was not shedding the rabies virus when the incident occurred**
  - **Domestic pet animals must only be shot under extreme or emergency circumstances (example: dog can not be safely put under control)**
  - **If an animal can not be located or escapes during the 10 day quarantine period the Environmental Health Officer must be informed immediately**
  - **If an animal is to be destroyed special care must be taken to not damage its head and the head must be preserved until able to ship it to ADRI in Lethbridge.**
  - **Wild animals are considered to be rabid and must be destroyed and sent for testing**

## V. Determining Contact

The Rabies virus is transmitted when the saliva of an infected animal is introduced into tissues. The most common method of transmission is through a bite wound, but can also occur when saliva is introduced into cuts or wounds or onto the mucous membranes. Transmission has also been known to occur through inhalation of the virus or through transplantation of infected corneas.

### 1. Human Exposure

Contact is considered to be any likely exposure to rabies virus, and is considered to have occurred if

- A bite has been inflicted
- There is a transfer of saliva onto the skin or mucous membranes by any means
- When a person is exposed to a rabid or suspected rabid animal the animal must be destroyed immediately and the head sent to ADRI for testing unless a 10 day quarantine period is acceptable
- **All wild animals are considered to have rabies and appropriate post-exposure treatment is strongly recommended when contact has occurred**
- If a domestic animal has been involved in a biting incident and appears to be acting normally then it is acceptable to quarantine it for 10 days even if there is a history of vaccination.

### 2. Animal Exposure

An animal is considered to be exposed to rabies virus if:

- A bite has been inflicted by a rabid or suspected rabid animal
- There is a transfer of saliva onto the skin or mucous membranes by any means
- A rabid or suspected rabid animal is found located in the same general area as the animals in question
- A rabid or suspected rabid animal is found where other animals may have been present

#### a) **Unvaccinated dog or cat**

When an unvaccinated dog or cat is in contact with, or suspected to be in contact with an animal suspected of having rabies the owner should be encouraged to have the dog destroyed immediately or put under strict quarantine for 6 months. The animal should be vaccinated against rabies one month prior to release

If a dog or cat gives birth following exposure the young are to be maintained with the mother for the duration of the quarantine

## **b) Vaccinated dog, cat or ferret**

A vaccinated dog or cat must have a valid vaccination certificate, or whose records are verifiable through the local Environmental Health Officer or veterinarian. Ferrets are now considered to be vaccinated, and are comparable to a vaccinated dog or cat. To be regarded as vaccinated the animal must have had a rabies vaccination shot within the last year.

### **An animal that was vaccinated within 30 days of a biting incident is considered to be unvaccinated**

When a vaccinated dog or cat is in contact with a rabid or suspected rabid animal the animal is to be strictly quarantined for 3 months, or under orders of Veterinary inspector one month strict isolation and two months relaxed

The dog or cat should be vaccinated at the beginning of the quarantine with the owner's consent

## **c) Wildlife**

All wildlife are considered to have rabies regardless of presence of clinical signs

## **d) Domestic pets**

Animals such as rabbits, hamsters and guinea pigs are considered to be unvaccinated but rarely carry the rabies virus. In each case, however, the Environmental Health Officer should be consulted and each situation considered individually

## **e) Other animals**

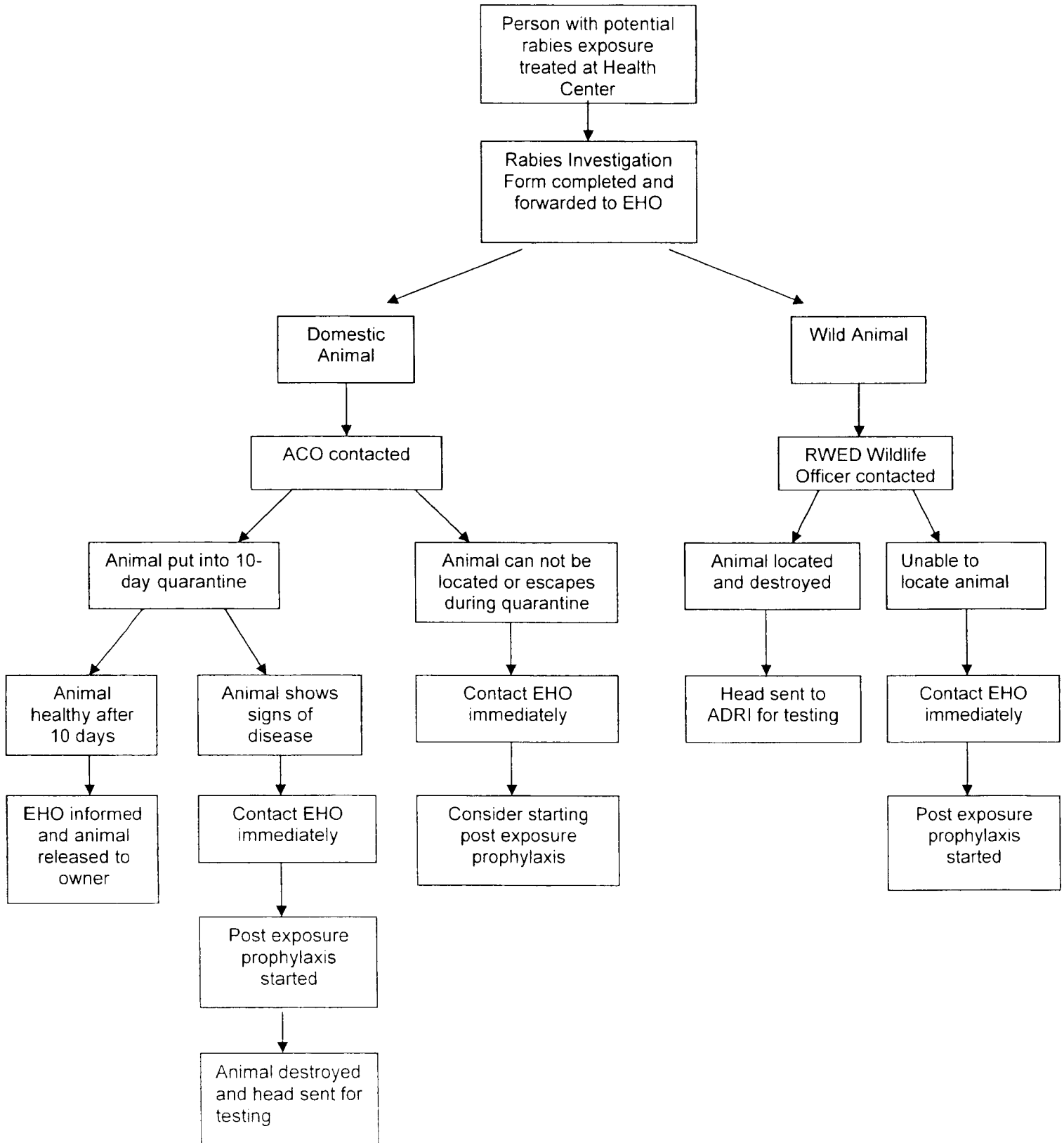
Questions regarding livestock and other animals should be referred to an Agri-Food Canada veterinary inspector





# Animal Bite and Rabies Exposure Guidelines

## Responding to an Animal Bite or Contact Reference Guide



## References:

CDC 2000. Rabies. <http://www.cdc.gov/ncidod/dvrd/rabies/Introduction/intro.htm>

Health Canada 2002. Rabies Vaccine Canadian Immunization Guide Canadian Medical health Association, 191-199

GNWT Department of Renewable Resource 1996. Rabies Control in the NWT

Chin, James, 2000. Control of Communicable Diseases Manual. American Public Health Association 411-419

Environmental Health Rabies Investigation Guide 1992