

RABIES: AN IMPORTANT PUBLIC HEALTH PROBLEM

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This article intends to support health care providers, area vets working in conjunction with your local public unit/veterinary center to properly manage cases with suspected rabies exposures. It will aid in the decision of whether to administer rabies post-exposure prophylaxis (RPEP), which consists of the following:

- A. In a previously unvaccinated case: Rabies immune globulin on the first day of post-exposure prophylaxis (Day 0) and rabies vaccination on days 0, 3, 7, and 14. In those who are immune-compromised or taking anti-malarial drugs, an additional dose is provided on day 28.
- b. In a case that was previously properly vaccinated against rabies: only two doses of rabies vaccine are required to be given on days 0 and 3. No rabies immune globulin is required.

The management of suspected rabies exposures involves number of considerations, including the type of animal involved in the exposure, the details of the exposure incident, and the knowledge of animal rabies in the geographic area where the exposure occurred. Local public health units, area vets are required to conduct a risk assessment of all cases who have had a suspected rabies exposure. While the ultimate decision to administer RPEP rests with the healthcare provider, the local public health unit, vet. center's risk assessment provide valuable information to help determine proper management of suspected rabies exposures.

Immediate Management: The initial management of any acute wound from an animal involves thoroughly clearing the wound. "Immediate and

thorough cleaning and flushing of the wound with soap and water is imperative and is probably the most effective procedure in the prevention of rabies. Care should be taken to clean the wound to its full depth. Flushing for about 15 minutes is suggested. Some guidelines also suggest the application of a veridical agent, such as iodine-containing or alcohol solutions. Suturing the wound should be avoided if possible. And tetanus prophylaxis should be given".

Reporting to your Medical Officer/Public Health Unit/Vet. Officer

Health care providers are required to notify their medical officer/local public health unit/vet. officer of any person/animal that has a suspected rabies exposure, This notification should occur as soon as possible and should provide with any available information.

Gathering information to assess risk and determine management of suspected rabies exposures. Upon notification of a suspected human/animal exposure to rabies, local health public units/vet. centers are required to conduct a risk assessment, the local public health unit's/vet center's roles include:

- Tracking the prevalence of rabies in your community
- Arranging for observation of the animal, if appropriate and the animal is available.
- Assisting in locating the animal if it is initially available.
- Arranging for rabies testing of the animal, if appropriate & necessary
- Providing the medicines for RPP, if deemed necessary
- When working with your local public health



unit, you and/or your patient will be asked to provide available information including:

- Demographic and other relevant information about the exposed person/animal
- Information about the animal, its location, its vaccination status, and its owner,
- Details of the exposure incident.

Only mammals can carry rabies: dogs, cats, bats; among wild mammals are foxes, coyotes; among wild and domestic rodents are squirrels, rats, mice, guinea pigs; among livestock are buffalo, cattle, goats, sheep, horses and probably camels. Although your local public health unit/vet center conducts the risk assessment concerning suspected rabies exposure, the ultimate decision regarding administering RPEP rests with the health care provider/vet. officer.

Dogs or Cats---Management of suspected rabies exposures information to consider when working with your local public health unit/vet. center in determining the proper management, includes the need for rabies post-exposure prophylaxis (RPEP), when a person/animal is with a bite or scratch from a dog or cat or gets saliva from these animals into a break in the skin or onto a mucous membrane (i.e., eyes, nose, mouth).

Is the dog or cat available for observation?

Yes: Local public health unit/vet. center arranges for observation of the animal and verifies that the animal is alive and well at 10 days following the exposure.

If there was a bite to the head or neck, an assessment will be done by the local public health unit and the health care provider/vet. officer to determine if RPEP should be initiated immediately considering factors such as the circumstances of the bite, animal's vaccination status, the prevalence of rabies in the area, and the age and behavior of the animal. More frequent observation of the animal could also be considered.

Is the animal alive and well at the end of 10 days observation period?

Yes: No need for RPEP.

No: If illness is suggestive of rabies development in the animal during the observation period, the animal should be humanely euthanized and the head sent for testing by the local public health unit. Otherwise RPEP should be started immediately.

Is there a reasonable chance of finding the animal?

Knowing the date, time and location of the incident, and having a good description of the owner and the animal may help in finding the animal.

Important factors to consider regarding the need for RPEP when the dog or cat is not available for observation.

Important factors to consider background information impact on assessment are, prevalence of rabies in the area. When was the last case of rabies in the area? What types of animals were recently found to have rabies? What is the risk of importation of rabid animals? How much rabies surveillance occurs in the area? The local public health unit/vet. officer tracks the numbers and types of rabid animals in the area, however, the surveillance of animals varies and may be limited in some areas. Domestic animals (dogs, cats, farm animals) are sometimes infected by wild animals unless the domestic animal has been imported from another area. Risk of rabies increases if there have been cases of rabies in the area (e.g., in the health unit area or in the neighbouring health units) in non-bat species in the past few years. However, it should be noted that there is an ongoing potential risk of rabies importation into the area that may be unrecognized, especially if surveillance in the area is limited. Did the animal appear to have an owner or could it be a stray? Stray animals more likely to have rabies as they are outdoors with more possibility to encounter rabid wildlife and are not likely vaccinated. Stray animals may be more likely to be infected with rabies. What is the type of exposure and location on the body? For transmission to occur,



saliva containing the rabies must enter a break in skin or mucous membrane. Any exposure resulting in saliva from rabid animal comes in contact with break in skin or mucous membrane, can result in human rabies, risk increases if exposure was a bite wound. Was the skin broken? Where on the body was the exposure? Incubation period for bites on head and neck may be quite short because of proximity to brain. Because of shorter incubation period for head & neck exposure, immediate RPEP may be indicated.

Consider other factors in risk assessment.

REFERENCE

1. Information given above was precised from a detailed report published in Canada in 2017.