

New Brunswick Veterinary Medical Association

GUIDANCE FOR DOMESTIC ANIMALS BITTEN BY AN ANIMAL

Rabies is a serious and fatal disease. Following percutaneous introduction (i.e., a bite) there is a variable incubation period before viral proliferation and migration along peripheral nerves to the spinal cord and brain. The incubation period (time from being exposed to onset of clinical signs) ranges from several days to many months. Generally, 3 to 12 weeks and rarely exceeds 6 months.

INCUBATION PERIOD

Time between introduction of virus into the body and appearance of clinical signs.

1.0 RISK ASSESSMENT

Assess risk the domestic animal was exposed (i.e., bitten by a potentially rabid animal) and could develop rabies. Considerations include:

- exposure,
- availability of offending animal for rabies testing,
- the offending animal species and prevalence of rabies

Not all potential exposure events carry a significant risk of rabies transmission.

Exposure

Virus is found in nervous tissue, salivary glands, saliva and cerebrospinal fluid. Transmission occurs through a bite or scratch from an **infected rabid animal**, or contamination of open wounds, abrasions or mucous membranes with infectious tissue. For bats, it may be difficult to detect bites, so direct physical contact with a bat can be considered exposure. Being sprayed by a skunk is not a risk for rabies transmission. Rabies viruses are rapidly inactivated by sunlight and desiccation, and do not survive long in the environment.

Rabies Testing

Available bats, raccoons, and striped skunks (regardless of behaviour) and other wildlife displaying abnormal behaviour and/or neurologic signs indicative of rabies should be submitted for rabies testing.

Offending Animal Species and Prevalence of Rabies

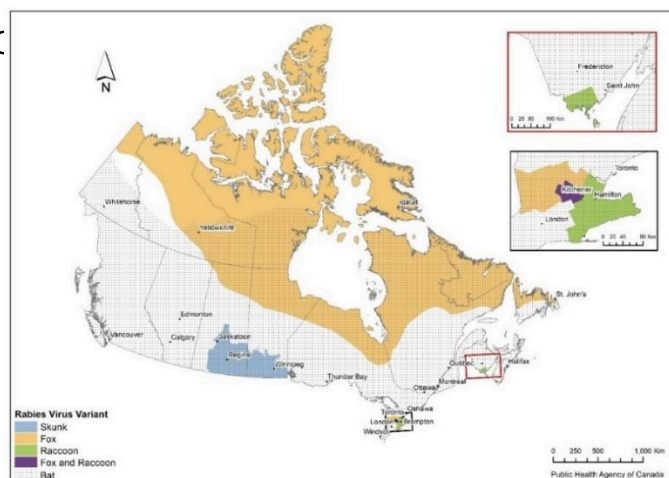
New Brunswick

- Bat variants occur in all bat species and is endemic throughout the province. All **bats**, (regardless of abnormal behaviour or not) that are not available or suitable for testing should be regarded as rabid.
- Raccoon variant is found in western New Brunswick and is maintained in raccoons and striped skunks. All **raccoons and striped skunks** (regardless of abnormal behaviour or not) that are not available or suitable for testing should be regarded as rabid.
- Other **wildlife species** are of significantly less concern unless displaying abnormal behaviour and/or neurologic signs indicative of rabies.
- Other **dogs and cats** are of significantly less concern unless displaying abnormal behaviour and/or neurologic signs indicative of rabies, had direct contact with a bat in last six months, or imported from or travelled to an area with canine variant rabies in last six months.



Canada

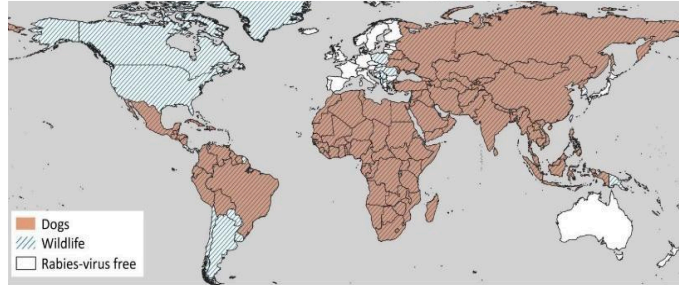
- Bat variants are endemic throughout Canada.
- Wild terrestrial carnivores are reservoirs for skunk, raccoon, and fox variants in different geographic areas.
- Canine variant not present.
- **Figure 1:** Distribution of rabies virus variants in Canada, 2016 to 2020¹.



¹ Reference [Rabies: For health professionals - Canada.ca](https://www.canada.ca/en/public-health/services/diseases/rabies-for-health-professionals-canada.html)

Globally

- Wildlife species (e.g. bats, foxes, jackals, mongooses, skunks) maintain rabies in many parts of the world.
- Canine variant rabies predominate in Africa, Asia, Latin America and the Middle East.
- **Figure 2:** Rabies around the world².



2.0 RISK MANAGEMENT ACTIONS

Take appropriate risk management actions for **exposed domestic animals** that could develop rabies after a variable incubation period. The actions include:

- Education/discussion with owner
- Administration of rabies vaccine
- Veterinary quarantine

Discuss with Owner

- Potential health risks to themselves, their family, the public, and others domestic animals. The only way to negate the risks entirely would be to promptly euthanize the exposed animal. The recommendations given below assume that owners have been educated about, and accepted, these risks.
- Likelihood exposed domestic animal could develop rabies (risk is highest in unvaccinated animals and lowest in vaccinated animals)
- Options for **Euthanasia** or **Veterinary Quarantine** (dog, cat, ferret or cattle, sheep, swine, horses, donkeys, and their hybrid offspring)

CLINICAL SIGNS

Initial signs are nonspecific and include lethargy fever, vomiting and anorexia.

As disease progresses, animals may show behavioural changes: for example, become unusually timid and quiet, or become unusually aggression.

Animals may bite suddenly without provocation or may bite themselves.

There is excessive salivation, difficulty swallowing, seizures, weakness, difficulty walking, paralysis, and eventually death (<10 days).

² Reference [Global Rabies: What You Should Know | Rabies | CDC](#)

- o Euthanasia is recommended for domestic animals that do not have established quarantine periods (i.e., where evidence is lacking to support a specific length of time for quarantine). If the owner is unwilling to have the domestic animal euthanized, the animal should be placed in strict quarantine (confinement in an enclosure that precludes direct contact with people and other animals) for a minimum of 6 months.
- o Animals vaccinated off-label may not respond as effectively as those for which the vaccine was developed.
- If offending animal is available, offer to test for rabies.

Administer Rabies Vaccine

An animal is considered currently vaccinated if administered a licensed rabies vaccine in accordance with label directions and at least 14 days have elapsed **after** initial vaccination³.

Dogs/Cats/Ferrets: administer vaccine within 7 days of event, or as soon as possible, and booster vaccine in 3 weeks.

- Considered “off label use” for young animals not old enough to meet the manufacturer’s “age for vaccination” with revaccination once animal has reached age indicated by manufacturer.
- Consider rabies vaccination for other animals in the household.

Livestock (Cattle, sheep, swine, horses, donkeys, and their hybrid offspring): evidence is lacking to support the use of rabies vaccines following potential exposure; however, vaccination may reduce risk similar to dogs/cats/ferrets.

Veterinary Quarantine

Place exposed domestic animal under **Veterinary Quarantine**

- Determine length of Veterinary Quarantine based on species, vaccination status and time of administration of rabies vaccine after event.
- Determine end date of quarantine.
- Quarantines restrict contact between exposed animal and humans or other animals. Most quarantines are carried out on the owners’ property. If the owner feels that the criteria can not be met, then alternative arrangements may be considered such as at a kennel or veterinary clinic, at the owner’s expense.
- Discuss clinical signs to look for and to immediately notify attending veterinarian of any changes in behaviour, clinical signs, or if the pet bites a person.

³ CCVO 2015 *Recommendations of the Canadian Council of Chief Veterinary Officers Subcommittee for the Management of Potential Domestic Animal Exposures to Rabies*

- Complete **Domestic Animal Veterinary Quarantine Agreement**. A quarantine agreement is between the attending veterinarian and the owner.
- Clarify requirements of quarantine and provide **Domestic Animal Veterinary Quarantine Owner Factsheet**
- Contact owner **in middle of quarantine** to inquire about animal health and clarify quarantine requirements, and **at end of quarantine** to inquire about animal health and to end the quarantine.
- If owner does **not comply with quarantine requirements**, contact the Field Veterinarian on call (506-453-2210). It is important to provide your name and contact information and be prepared to discuss the circumstances around the case and provide owner contact information and patient history. Quarantine Orders may be issued through the Department of Agriculture, Aquaculture and Fisheries.

Euthanasia

Euthanasia may be requested because the exposed domestic animal can not be confined as per criteria of a **Veterinary Quarantine**.

- Rabies testing is not required.

3.0 LENGTH OF QUARANTINE

Based on exposed domestic animal species (Dog/Cat, Ferret, or Livestock), vaccination status and time of administration of rabies vaccine after event.

Dog and Cat⁴

Vaccination Status	Time of Administration of Rabies Vaccine After Event	Quarantine
Unvaccinated (never vaccinated or vaccine history is unknown) Or Previously vaccinated (but out of date according to label instructions)	Receive vaccine WITHIN 7 DAYS of event AND receive booster vaccine in 3 weeks.	3 month
	Receive vaccine AFTER 7 DAYS of event OR does not receive booster vaccine in 3 weeks.	6 month
Currently vaccinated (up to date according to label instructions)	Receive vaccine WITHIN 7 DAYS of event	No quarantine

⁴ 2015 NBVMA *What to do if a companion animal (dog, cat, ferret) is bitten by an animal that could potentially be rabid.*

	Receive vaccine AFTER 7 DAYS of event	3 month
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Ferret⁵

Vaccination Status	Time of Administration of Rabies Vaccine After Event	Quarantine
Unvaccinated (never vaccinated or vaccine history is unknown) OR Previously vaccinated (but out of date according to label instructions)	Receive vaccine WITHIN 7 DAYS of event AND receive booster vaccine in 3 weeks.	6 month
	Receive vaccine AFTER 7 DAYS of event OR does not receive booster vaccine in 3 weeks.	6 month
Currently vaccinated (up to date according to label instructions)	Receive vaccine WITHIN 7 DAYS of event	No quarantine
	Receive vaccine AFTER 7 DAYS of event	6 month

Livestock⁶

Cattle, sheep, swine, horses, donkeys, and their hybrid offspring.

Place exposed animal under a **60-day Veterinary Quarantine** regardless of vaccination status. While specific evidence is lacking to support the use of post-exposure rabies vaccination in livestock species, evidence does support this practice in dogs and cats. Post-exposure vaccination of livestock species immediately following an exposure event may similarly reduce the risk.

If a case of rabies has been diagnosed within the herd/group then all animals in the herd/group are placed under a **40-day Veterinary Quarantine** (40 days from the time of the first diagnosis). Herbivore-to-herbivore transmission of rabies is quite rare.

⁵ 2015 NBVMA *What to do if a companion animal (dog, cat, ferret) is bitten by an animal that could potentially be rabid.*

⁶ CCVO 2015 *Recommendations of the Canadian Council of Chief Veterinary Officers Subcommittee for the Management of Potential Domestic Animal Exposures to Rabies*

Follow quarantine requirements to minimize direct contact of exposed livestock(s) with people and other animals outside of the quarantined group and ensuring handler safety should the animal(s) develop neurological disease, such as confining exposed livestock and limiting movements.

Livestock animals that are not exhibiting any clinical abnormalities consistent with rabies can be slaughtered for human consumption under standard procedures within **seven days of exposure event**. After this time, animals **should not** be slaughtered for human consumption until completion of the quarantine period.

Animals that must be culled from a herd during quarantine, and greater than 7 days after exposure, must be euthanized and disposed of appropriately, but should not enter the human nor animal food chain.

Milk from quarantined animals can continue to enter standard processing channels only if milk will be pasteurized. Milk **should not** be used in raw milk products.

DOMESTIC ANIMAL VETERINARY QUARANTINE

OWNER FACTSHEET

Your animal will be confined and observed closely (i.e., in your home, barn/barnyard etc.), after being bitten and potentially exposed to rabies, for the health of your animal, other animals, and people.

It is important to:

Limit contact with people and other animals:

- Limit contact with other adults, children and other animals by having only one person care for your animal. If necessary, an alternate person can help.
- Keep livestock restricted in a well-fenced in area. Smaller domestic animals need to be directly supervised and kept in a secure yard and or on a leash.
- Do not allow your animal to roam unsupervised. Your animal can leave the property for basic exercise and necessary veterinary care while under the control of an adult (for example kept muzzled and on-leash or in a securely closed pet carrier).
- Do not share your animal's water/feed buckets with resident animals on the farm.
- Water bowls, food bowls, toys or bedding can also not be shared with other animals.
- Do not leave your animal unsupervised for extended periods in a building/room/enclosure (indoor or outdoor) from which escape is possible.

Keep a record of contact with people and other animals:

If accidental contact occurs between your animal and people or other animals, record the date, name and contact information of the people and owners, and describe the type of contact that occurred. Recording on a calendar can be helpful.

Contact your veterinarian IMMEDIATELY if your animal has:

- Bitten someone,
- Sudden loss of appetite, lethargy, or excessive drooling (salivation),
- Changes in behaviour and/or temperament including abnormal aggression or abnormal quietness,
- Unusual irritability or hyperexcitability, or unusual nervousness and hiding from others,
- Abnormal vocalizations or changes in voice,
- Sudden unexplained onset of lameness or problems walking.

DOMESTIC ANIMAL VETERINARY QUARANTINE AGREEMENT

Dog/Cat Veterinary Quarantine: ____ 3 month ____ 6 month

Ferret Veterinary Quarantine: ____ 6 month

Livestock (Cattle, sheep, swine, horses, donkeys, and their hybrid offspring) Veterinary Quarantine:
____ 40 days ____ 60 days

"Other" Livestock Veterinary Quarantine ____ 6 month

Date Veterinary Quarantine was initiated (dd/mm/yyyy): _____

Date Veterinary Quarantine ends (dd/mm/yyyy): _____

Contact information of Owner (print name; address and contact numbers):

Name: _____

Address: _____

Contact Number: _____

Alternative Contact Number: _____

Contact information of Attending Veterinarian: _____

I _____, resident of _____,
and owner of the _____ (species) named _____,
acknowledge that I understand the conditions of the quarantine and will strictly abide by
them.

Signature of owner: _____ Date: _____

Signature of veterinarian: _____ Date: _____

Attending Veterinarian contact with Owner

Middle of Quarantine:

Date (dd/mm/yy): _____ Health Status Animal: _____

End of Quarantine:

Date (dd/mm/yy): _____ Health Status Animal: _____

Figure 3: Assess Risk Dog or Cat was Exposed (e.g. bitten by potentially rabid animal) and Risk Management Actions

For more information refer to *NBVMA Guidance for Domestic Animals Bitten by an Animal*

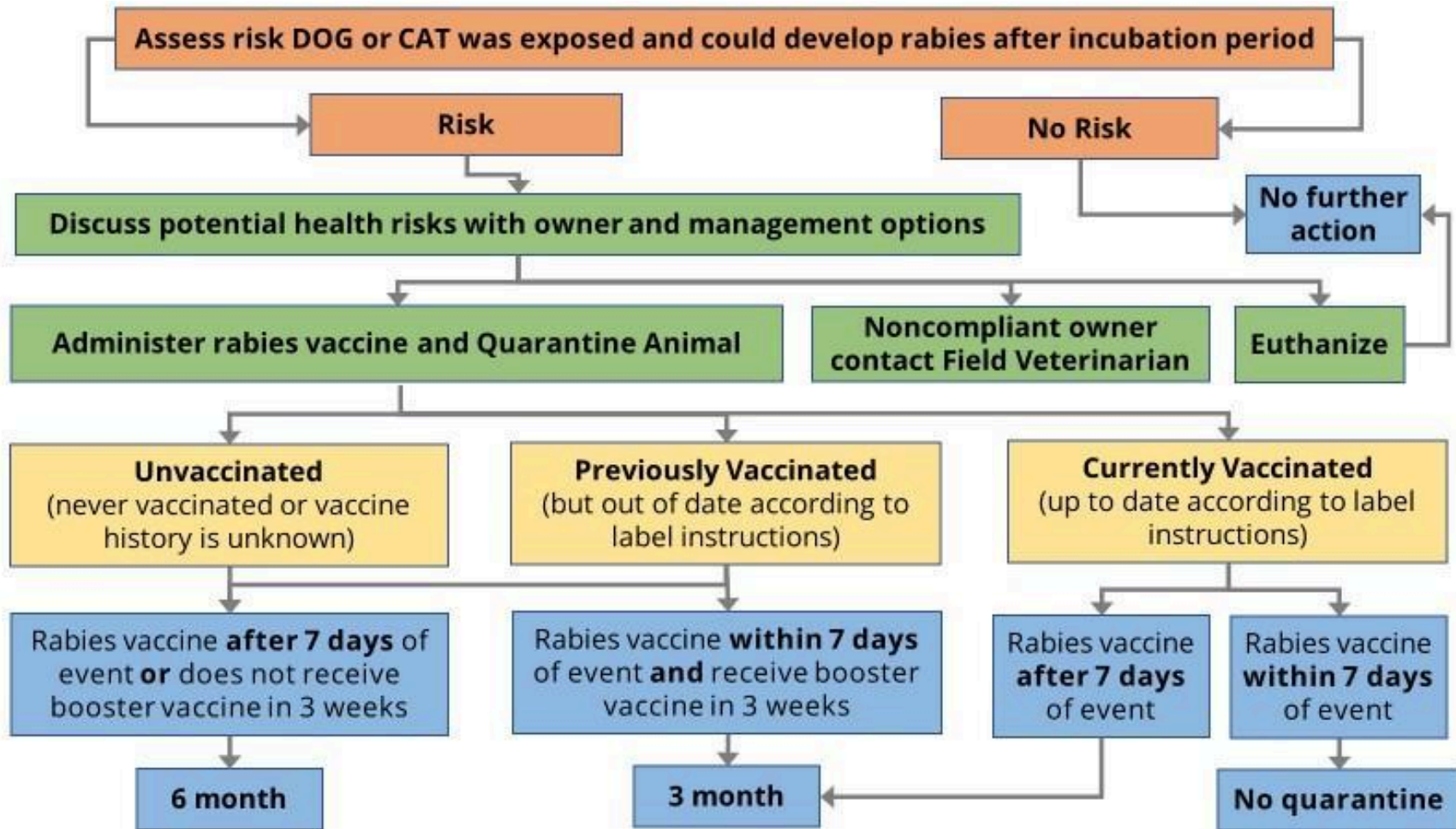


Figure 4: Assess Risk Ferret was Exposed (e.g. bitten by potentially rabid animal) and Risk Management Actions

For more information refer to *NBVMA Guidance for Domestic Animals Bitten by an Animal*

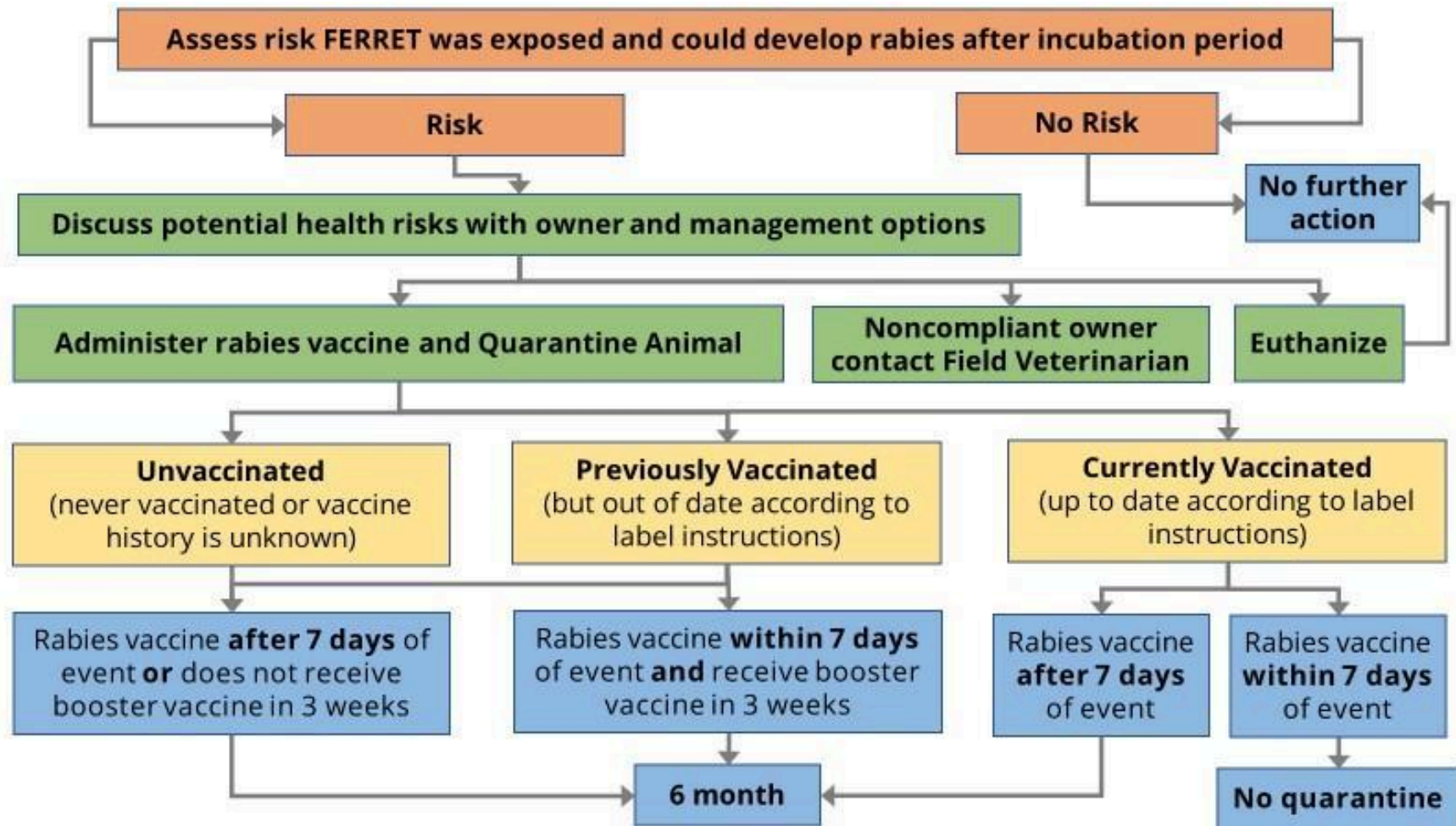


Figure 5: Assess Risk Livestock was Exposed (e.g. bitten by potentially rabid animal) and Risk Management Actions

For more information refer to *NBVMA Guidance for Domestic Animals Bitten by an Animal*

