

Idaho Rabies Protocol

Protocol for Animal Isolation, Animal Bites and Rabies Post-exposure Prophylaxis

July 10, 2007



A Consensus Agreement Between the Idaho Department of Health and Welfare, the Idaho District Health Departments, the Idaho State Department of Agriculture, and the Idaho Department of Fish and Game with input from the United States Department of Agriculture

Questions and comments regarding this protocol can be referred to the Idaho Department of Health and Welfare, Office of Epidemiology and Food Protection (208) 334-5939 or the Idaho State Department of Agriculture, Division of Animal Industries (208) 332-8540.

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I. Introduction

Rabies prevention and control is both a public health and veterinary concern and cannot be adequately addressed without establishing and maintaining partnerships and procedures across disciplines. The Idaho Department of Health and Welfare (IDHW), Idaho State Department of Agriculture (ISDA), District Health Departments, Idaho Department of Fish and Game (IDGF), United States Department of Agriculture (USDA), Centers for Disease Control and Prevention (CDC), and local professionals in animal control, law enforcement, humane societies, and private veterinary practice, among others, all contribute to the prevention and control of rabies. The following protocol was developed by the rabies protocol committee, listed above. This document outlines rabies prevention and management practices within Idaho based on national standards of practice such as those included in the current Compendium of Animal Rabies Prevention and Control (Rabies Compendium), an annual publication by the National Association of State Public Health Veterinarians.

Human rabies

Rabies is a rare disease in humans; however, one or more fatal human cases occur almost every year in the United States. Rabies infections may be acquired from both bite and non-bite exposures. Between 1990 and 2006 there were 50 (49 fatal and 1 non-fatal) human cases of rabies documented in the U.S. (Section IX: Human Rabies table). Thirty-seven (74%) of the 50 cases had been infected with a bat variant of the virus from an encounter with a rabid bat: only 4 of 37 (10.8%) had a documented history of an actual bat bite, 5 of 37 (13.5%) had a history of receiving a contaminated transplanted organ (all from the same donor in 2004). Recipients were located in AL, AK, OK, and TX¹. Infection through transplantation is extremely rare and we believe last documented in Idaho after a corneal transplant in 1978. The rest (28/37 [75.6%]) had an unknown exposure history but were diagnosed with the bat rabies variant. Unlike bites from larger animals, the minimal trauma of a bat bite is not likely to warrant medical attention. Persons may minimize the medical implications of a bat bite or another seemingly insignificant interaction with a bat. Unless the potential for rabies exposure is known to the patient, medical treatment may not be sought in a timely manner and a fatal outcome could ensue. In 2004 one individual with the bat strain survived the infection with medical support². This is noteworthy as survival is highly unlikely from a rabies infection once clinical signs appear. Twelve (24%) of the 50 cases were due to dog variant of rabies and one case (1/50 [2%]) in VA was due to a raccoon variant. Only one human case, in 2003, was documented as being caused by the raccoon strain of rabies.

Rabies in Idaho

In Idaho, only bat species are known to be natural reservoirs for rabies. Between 1999 and 2006 an average of 18 bats (range 5–38) per year, or 10.1% of bat submissions (range: 4.6% –18.2%), tested positive for rabies by the Idaho Department of Health and Welfare Bureau of Laboratories (Table 1). These numbers only represent those rabid animals that actually were submitted for testing; the actual number of rabid bats in Idaho is likely much higher. Rabid bats have been reported from almost all parts of Idaho and have been detected from May through November.

Year	Rabid Bats
2006	26
2005	12
2004	7
2003	15
2002	38
2001	28
2000	10
1999	5

Year of Diagnosis	Animal Type	Rabies strain type
2004	Skunk	Bat
2001	Bobcat	Bat
1999	Horse	Bat
1992	Cat	Bat
1991	Cat	Bat
1968	Raccoon	Unknown
1967	Cat	Unknown
1967	Skunk	Unknown

A handful of other species have also been documented as having the bat strain of rabies in Idaho (Table 2). Because other mammals have tested positive for rabies, the risk of rabies exposures from bites, scratches, or other exposures from mammals other than bats must not be ignored and should be discussed with a healthcare provider to determine if rabies post-exposure prophylaxis would be recommended.

Rabies prevention

According to the 2007 Rabies Compendium, essential components of rabies prevention and control include ongoing public health education, responsible pet ownership, routine veterinary care, and professional continuing education. The majority of animal and human exposures to rabies can be prevented by raising awareness about: rabies transmission routes; avoiding contact with wildlife; and appropriate veterinary care. Prompt recognition and reporting of possible exposures to medical professionals and local public health authorities is critical.

Reducing exposures to wild and domestic unvaccinated animals, and medically managing animals and individuals who encounter a situation where rabies transmission might occur, is critical for rabies prevention.

The prevention of dog bites to humans is an important concept in rabies control nationwide. Many situations with the potential for rabies transmission would be avoided if dogs were controlled, reducing the opportunity for biting. Educational resources for dog bite prevention can be found at the following American Veterinary Medical Association website: <http://www.avma.org/pubhlth/dogbite/default.asp>. Rabies ordinances may help with the management of bite cases. An example of the American Veterinary Medical Association Model Rabies Ordinance is found in section XII. Bites from cats and wild animals are less frequently documented in people, but also pose a risk for rabies infection. Non-bite high risk situations involve exposure of open cuts or mucous membranes to animal saliva or nervous tissue. Difficult decisions regarding euthanasia of pets that are involved in bite situations might be avoided if all dogs and cats remained current on their rabies vaccinations. Rabies vaccination for cats and dogs, although not mandated by the State of Idaho, may be required by local rabies ordinances (see city rabies ordinances in Idaho, Section XIII).

II. Disclaimer

All situations involving rabies and animal bites are unique. No protocol can address every situation that might occur. The intent of this protocol is to provide a rabies management decision-tree for the most common scenarios, based on the latest scientific evidence and recommendations from national organizations. Questions regarding rabies or this protocol may be directed to the Idaho Department of Health and Welfare, Office of Epidemiology and Food Protection at (208) 334-5939, the Idaho State Department of Agriculture, Division of Animal Industries, at (208) 332-8540, or the District Health Department in your area:

District 1: 208-415-5100 (Benewah, Bonner, Boundary, Kootenai, Shoshone)

District 2: 208-799-3100 (Clearwater, Idaho, Latah, Lewis, Nez Perce)

District 3: 208-455-5300 (Adams, Canyon, Gem, Owyhee, Payette, Washington)

District 4: 208-375-5211 (Ada, Boise, Elmore, Valley)

District 5: 208-734-5900 (Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls)

District 6: 208-233-9080 (Bannock, Bear Lake, Bingham, Butte, Caribou, Franklin, Oneida, Power)

District 7: 208-522-0310 (Bonneville, Clark, Custer, Fremont, Jefferson, Lemhi, Madison, Teton)

This consensus document is a collection of practices agreed upon by representatives of multiple agencies, and is based on federally acceptable policies and procedures. It represents current practices reflecting the nationally acceptable standard of care in the medical and veterinary community. How each county or health district manages to acquire animals for testing or quarantine may vary. It is up to the local jurisdiction to determine which agency should participate in animal seizure and quarantine, including, but not limited to animal control officers or county sheriffs. A partial list of city rabies ordinances in Idaho can be found at the end of this document (section XIII). Public health officials are not trained in animal seizure and do not have facilities to hold animals under quarantine. Quarantine arrangements may be made with a local veterinarian. Public health officials with the Idaho Department of Health and Welfare and the health districts are resources for medical inquiries, investigations, pet, or bat inquiries. Livestock inquiries should be referred to the Idaho State Department of Agriculture. Any wildlife questions will be referred to the Idaho Department of Fish and Game for assistance.

III. Reporting Requirements³

The Idaho Department of Health and Welfare, Division of Health, Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10) may be found at:
<http://www2.state.id.us/adm/adminrules/rules/idapa16/0210.pdf> .

1. Rabies in humans is reportable immediately, day or night.

During normal working hours a case of human rabies should be reported to the district health department epidemiologist by choosing the appropriate phone number from the list above or to the state Office of Epidemiology and Food Protection (OEFP) in Boise (Ph: 208-334-5939 , fax: 208-332-7307). After normal working hours and on weekends, public health professionals may be reached through the State Communications Paging System at 208-846-7610 or 800-632-8000. All rabies cases in humans will be investigated thoroughly by public health officials to determine the source of infection and to suggest public health interventions, when appropriate.

2. Rabies in animals is reportable within 24 hours of detection.

During normal working hours a case of animal rabies should be reported to the district health department epidemiologist by choosing the appropriate phone number from the list above or by calling or faxing OEFP (Ph: 208-334-5939 , fax: 208-332-7307).

Typically a case of rabies in an animal would be confirmed by the state public health laboratory (Idaho Bureau of Laboratories [IBL]). Confirmation would be immediately relayed to the state and district epidemiologists involved in the situation so that follow-up activities could proceed. Follow-up activities would include assessing potential exposures to the rabid animal, informing any individual (or parent or guardian if a child is involved) known to be involved with the rabid animal of their potential exposure to a rabid animal, and encouraging exposed persons to seek medical attention promptly. Because health districts are often involved early on in the situation by facilitating the testing of the offending animal, exposed persons may be advised to seek medical attention even prior to the conclusion of laboratory testing. The district health department also makes every effort to determine how many additional persons might have had an exposure to the rabid animal. All persons with a suspected exposure are encouraged to seek a medical opinion regarding the use of rabies post-exposure prophylaxis (rPEP). The ISDA becomes involved if the rabid animal exposed pets or livestock, depending on the situation. ISDA has the authority to make recommendations regarding quarantine and euthanasia (see ISDA quarantine letter, Section X).

3. Each initiation of rPEP in humans is reportable to the state or district health department within three days of initiation.

During normal working hours the initiation of rPEP can be reported to the local district health department epidemiologist by choosing the appropriate phone number from the list above or by calling or faxing OEFP (Ph: 208-334-5939 , fax: 208-332-7307).

Reporting of rPEP usage is important to identify all individuals potentially exposed to a rabid animal. rPEP is a series of injections to protect the individual from a rabies infection and the proper use of rPEP is described in the CDC document "Human Rabies Prevention, 1999"⁵. The decision to administer rPEP is made between the healthcare provider and the patient and is generally based on the epidemiology of rabies in Idaho.

IV. Laboratory Testing

Packaging and Shipping

Samples must be packaged appropriately according to shipping regulations and the shipping agency used for delivery (e.g. UPS, FedEx, USPS), otherwise there may be delays in shipping and testing. Delays in shipping may affect the integrity of the head, leading to an untestable sample. The shipping company will have guidance on labeling as diagnostic specimen and about attaching a biohazard label,

In general, for samples to be tested for rabies, it is important to keep heads cold, not frozen, double bag heads, and wrap the bags in absorbent material. Place the bagged heads in a rigid container with enough chill packs (not wet ice) to assure the specimen will remain cool during shipping.

In addition to test delays, inappropriately packaged samples may lead to penalties from the shipping company. Please contact the Idaho Bureau of Laboratories if you still have questions regarding appropriate packaging protocols for brain tissue, heads, or whole small carcasses.

For veterinary practitioners: Please note, in most situations local health districts are willing to assist in shipping samples to the Idaho Bureau of Laboratories, but it is your responsibility to package the sample correctly so there are no leaks and to assure that the package is in compliance with any current shipping safety regulations.

Shipping Costs

Shipping costs are incurred by the submitter. Should the submitter be unable or unwilling to pay shipment costs, options may exist on a case-by-case basis. If the submitted animal is not owned (a wild animal, or wildlife) the Idaho Department of Fish and Game may facilitate shipment through one of their regional offices. In addition, shipment of properly packaged samples may be facilitated by the local district health department where a courier system is already in existence. Each situation is dealt with on a case-by-case basis.

Laboratory Testing of Appropriately Submitted Samples for Rabies

The ISDA diagnostic laboratory in Boise is typically the agency to initially receive an animal or animal head for rabies testing. The ISDA laboratory removes the brain tissue for testing and then delivers the brain tissue to the IBL, Virology Section, for virus detection. Both laboratories are located within the same building. Occasionally an entire bat is shipped directly to the IBL for rabies testing.

The IBL virology section then performs the direct fluorescent antibody (dFA) test on brain tissue using anti-rabies antibodies that are labeled with a fluorescent tag. Rabies-positive brain tissues are identified by apple-green areas using a fluorescence microscope. The IBL follows the CDC protocol "Protocol for Postmortem Diagnosis of Rabies in Animals by Direct Fluorescent Antibody Testing, A Minimum Standard for Rabies Diagnosis in the United States." The entire document may be found at the following website:

http://www.cdc.gov/ncidod/dvrd/rabies/Professional/publications/DFA_diagnosis/DFA_protocol-b.htm .

Testing costs

Tests will only be performed on samples pre-approved for testing by the health district or OEFP. Animals will only be tested if there was a suspected human or animal exposure. Animals will not be tested if no exposures to humans or other animals are suspected. There are no costs associated with the actual rabies test performed by the IBL; however, there is a \$50 charge (subject to change) from the Department of Agriculture for processing whole animals weighing over 8 lbs. No whole animals over 20 lbs will be accepted; the head must be removed for submission.

Results

Test results will be provided to the submitter, the local health district and OEFP.

V. Definitions, General Information, and Abbreviations

ACIP: Advisory Committee on Immunization Practices, Human Rabies Prevention, 1999
<http://www.cdc.gov/mmwr/preview/mmwrhtml/00056176.htm> .

Appropriately vaccinated animal: Rabies vaccination must be performed by or under the direct supervision of a veterinarian who is licensed to practice veterinary medicine in Idaho. The 2007 Compendium of Animal Rabies Prevention and Control⁴ lists species

approved for specific rabies vaccination formulations. Wolf hybrids are not approved species. Dogs, cats, and ferrets are approved species that will be considered appropriately vaccinated for the purpose of rabies control when the owner has documented that the animal:

- is older than 3 months (older than 2 months for certain vaccine formulations); AND
- has been vaccinated by a licensed veterinarian with a rabies vaccine approved by USDA for use in that species; AND,
- has received the appropriate number of vaccinations for its age as specified in the Rabies Compendium.

Additionally:

- An animal is considered appropriately immunized 28 days after receiving its primary vaccination.
- Regardless of the age of the animal at the time of primary immunization, a booster one year later and then regularly as indicated by the manufacturer is indicated. Annual or triennial administration is standard; however, certain vaccines are licensed for boosting every four years. The administration schedule is based on the particular product being administered: when in doubt, consult the table in the Rabies Compendium.
- If the vaccination status of a previously appropriately vaccinated animal has expired, the animal is considered appropriately vaccinated immediately following the booster.
- If a one year vaccine has expired, the subsequent vaccine will be considered a one year vaccine, not a three year booster, according to manufacturers' labeled instructions (and verbal communication with Ft. Dodge technical services). If a three year booster has expired the animal will start over with a 1 year vaccine schedule followed by the 3 year schedule.

Livestock vaccination: Horses traveling interstate should be currently vaccinated against rabies. Vaccination of particularly valuable livestock or animals that might have frequent contact with humans (e.g., petting zoos, fairs, and other public exhibitions) should be strongly considered.

Attacks: Attacks may be categorized as provoked or unprovoked and these categorizations may play a role in the management of a particular situation.

Provoked attack

An attack is considered provoked if an animal is placed in a situation such that an expected reaction would be to bite or attack. This may include, but not be limited to the invasion of an animal's territory, attempting to pet or handle an unfamiliar animal, startling an animal, assisting an injured animal, trying to capture an animal or removing food, water, or other objects in the animal's possession. Although provoked attacks may be explained by normal animal behavior, a thorough investigation should always occur to determine if the attack was provoked or unprovoked.

Unprovoked attack

An unprovoked attack or bite occurs when an animal strikes for no apparent reason.

The behavior should be unusual for the particular animal or species. A confirmation of chronic aggressive behavior would reduce the likelihood that a bite is unprovoked or rabid.

Bats and rabies: The CDC has an excellent bats and rabies website at:

http://www.cdc.gov/ncidod/dvrd/rabies/bats_&_rabies/bats&.htm .

Bats are increasingly implicated as significant wildlife reservoirs for variants of rabies virus transmitted to humans and other animals. Recent epidemiologic data suggest that transmission of rabies virus may occur from minor, seemingly insignificant, or unapparent bites from bats. The limited injury inflicted by a bat bite (in contrast to lesions caused by terrestrial carnivores) and an often inaccurate recall of the exact exposure history, may limit the ability of health care providers to determine the risk of rabies resulting from an encounter with a bat. In all instances of potential human exposures involving bats, the bat in question should be safely collected, without damaging the head or touching the animal with bare hands, and submitted for rabies testing. Rabies post-exposure prophylaxis (rPEP) is recommended for all persons with bite, scratch, or mucous membrane exposure to a bat unless the bat is available for testing and is negative for the rabies virus. Bat rabies virus variants have been documented in other mammals, and caused an epizootic of rabies among skunks in Arizona in 2001.

To reduce the chance of a bat encounter in a home or cabin, bats should be excluded from dwellings by following suggestions mentioned in the following website:

<http://www.cdc.gov/ncidod/dvrd/rabies/default.htm>. Eradication of bat populations in Idaho is not feasible or desirable.

Unique bat situation: rPEP may be appropriate even in the absence of a demonstrable bite, scratch, or mucous membrane exposure from a bat. Some situations in which there is reasonable probability that such an exposure may have occurred include the following:

- a sleeping individual awakes to find a bat in the room; or,
- an adult witnesses a bat in the room with a previously unattended child, mentally challenged person, or intoxicated individual.

The likely effectiveness of rPEP in these settings needs to be balanced against the risk such exposures appear to present. This recommendation, used in conjunction with current ACIP guidelines, should maximize a provider's ability to respond to situations where accurate exposure histories may not always be obtainable, while still minimizing inappropriate rPEP. The ACIP document may be found at the following website:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/00056176.htm> .

Bat rehabilitation: Wildlife rehabilitation permits are required by IDFG prior to possession of wildlife, including bats, for rehabilitation purposes. Application for such permits can be obtained by calling the appropriate Idaho Department of Fish and Game Regional Office. Rehabilitators will be provided information on rabies risks when receiving or renewing their permits. An electronic version of the educational information provided can be found at the following website:

http://www.cdc.gov/ncidod/dvrd/rabies/bats_&_rabies/bats&.htm

Individuals participating in bat rehabilitation are considered to be participating in an activity with an inherent risk for rabies exposure. According to the Centers for Disease

Control and Prevention document "Human Rabies Prevention-United States, 1999", individuals participating in such activities should receive the entire rabies **pre**-exposure vaccination series (a three-shot series). They should limit bat-related activities to themselves and to others that have also received the pre-exposure vaccination series. Everyone involved with bat rehabilitation must be educated concerning the rabies risks associated with such activities. The pre-exposure vaccination series does **not** eliminate the need for post-exposure vaccination when faced with a suspected or confirmed rabies exposure; however, it reduces the number of vaccinations required from 5 vaccinations and one shot of rabies immune globulin (RIG) to just 2 vaccinations and no RIG.

Bat rehabilitators should always advise members of the general public which have handled or been exposed to bats, or are requesting assistance with bat rehabilitation, to discuss bat exposures with their healthcare providers. Whenever any situation arises where a rabies exposure is suspected, the health department must be notified and the bat must be tested for rabies. Information and educational material is available through the Idaho Department of Health and Welfare, Office of Epidemiology and Food Protection at 208-334-5939 or the local District Health Department.

Recommendations for bat rehabilitation safety:

1. Participants should receive the full pre-exposure vaccination series prior to working with bats.
2. Have anti-rabies antibody titers checked every 2 years, as recommended by the CDC. A booster may be required if the titer falls below the cut-off value as determined by CDC. Information on rabies titer-testing can be obtained by calling the Idaho Department of Health and Welfare, Office of Epidemiology and Food Protection at 208-334-5939.
3. Never handle any bat without gloves, even if a person is vaccinated. Gloves should be made of leather or other thick material to avoid a bite or direct skin puncture/contact.
4. Avoid contacting any mucous membranes (*e.g.*, eyes, mouth) during and after handling bats. Eye protection is recommended when working with bats.

CDC: Centers for Disease Control and Prevention

Contact or bite: Refers to a bite, scratch or exposure (see **exposure**) to saliva or neural (brain/spinal cord) tissue from a rabies-susceptible animal (as defined below). The actual witnessing of a bite or attack by a potentially rabid animal is not required for an exposure to have occurred (see the bat section for more information). Animal attacks can be categorized as *provoked* or *unprovoked* (see **Attacks** section).

Domestic animal: A dog, cat, or ferret, as defined by the Rabies Compendium.

Euthanasia, humane: The American Veterinary Medical Association (AVMA) has a document on acceptable euthanasia practices at the following website: <http://www.avma.org/resources/euthanasia.pdf>. If euthanasia is the only option, according to the scenarios outlined in this rabies document, then the animal must be

euthanatized in the most humane method possible. Methods to avoid damaging the head are to be employed so that brain tissue is available for testing.

Euthanasia of “Species of Special Concern”, threatened species, and endangered species: Euthanasia of these species cannot occur without approval by the Idaho State Fish and Game Wildlife Bureau.

Exposure: Rabies is typically transmitted when the virus is introduced into bite wounds, open cuts in skin or onto mucous membranes from saliva or other potentially infectious material such as neural tissue. On rare occasion, rabies has been introduced through corneal and organ transplants from an infected donor.

Bite: The skin has been penetrated by an animal’s teeth.

Non-bite: Saliva or neural tissue from an animal has come into contact with an open wound or a mucous membrane. Additional non-bite exposures may occur, which may include organ transplantation.

Because rabies virus is found in concentrations sufficient for infection only in saliva, salivary glands, and central nervous system tissue of rabid animals, contamination from other organs and body fluids is usually not considered a risk for rabies transmission. Special considerations must be taken regarding bats (see bat section above).

Idaho State Department of Agriculture, Animal Industries: State Veterinarian, (208)-332-8540

Idaho Department of Fish and Game: State Wildlife Veterinarian, (208) 454-7646

Idaho Department of Health and Welfare, Office of Epidemiology and Food Protection: (208)-334-5939

Impoundment: See "quarantine"

Isolation: See "quarantine"

Livestock: Cattle, pigs, horses, mules, asses, and both native and non-native domestic ungulates.

Petting zoos and other public settings where animals are displayed: The “Compendium of Measures to Prevent Disease and Injury Associated with Animals in Public Settings – 2004”⁶ may be found at the following website www.nasphv.org.

Post-exposure prophylaxis (PEP): Rabies post-exposure prophylaxis (rPEP) for individuals never receiving the pre-exposure vaccination series consists of an injection of anti-rabies gamma globulin (RIG), and 5 rabies vaccine injections (day 0, 3, 7, 14, 28). Please refer to the CDC publication “Human Rabies Prevention United States, 1999” or a more recent version, if available, for a more detailed discussion of the procedure. This publication and more can be found at the following website: <http://www.cdc.gov/ncidod/dvrd/rabies/professional/professi.htm>. As of this printing, the

1999 document was the most recent version available.

Pre-exposure vaccination: Individuals in high-risk occupations and situations should be vaccinated against rabies prior to employment or exposure. For more details on the pre-exposure vaccination series see "Human Rabies Prevention United States, 1999" or a more recent version, if available.

Quarantine: Quarantine refers to the isolation of an animal intended to prevent its exposure to humans or animals. Quarantine is recommended when rabies or rabies-exposure is suspected in said animal. Quarantine must take place in a cage, or other suitable facility and requires the involvement of a licensed veterinarian. A representative of ISDA will assist Health District, animal control, or local law enforcement (e.g., Sheriff) personnel to inspect and approve a humane, home quarantine facility. The Department of Agriculture has developed a home quarantine protocol, as outlined in their letter; see section X. Three levels of quarantine are defined, **impoundment** and **strict isolation**. Careful attention should be paid to these terms and their use in this document.

Impoundment: Refers to the isolation of an animal within a facility such as a veterinary clinic, animal control facility, humane society, or other establishment under the direct supervision of a veterinarian. Impoundment **does not** take place at an owner's home or premise.

Strict isolation: Refers to the isolation of an animal within a facility such as a veterinary clinic, animal control facility, humane society, the owner's home or other premise that ensures no contact with the public or other animals can occur. Strict isolation **may occur** at the owner's home or premise. If strict isolation occurs at the owner's home, an Idaho State Department of Agriculture-approved structure must exist or be constructed ASAP.

Owner's Control: The animal is not kept in strict isolation, as described above, but the animal's interactions with other animals and people must be limited for the duration of the quarantine. This form of isolation is less strict but must be done at the owner's home. The animal may be kept in the home or backyard pen as long as the animal cannot escape the owner's control. The animal can interact with family members.

The owner is responsible for all costs associated with impoundment or strict isolation.

Rabies Compendium: The Compendium of Animal Rabies Prevention and Control is a document updated annually by the National Association of State Public Health Veterinarians and Centers for Disease Control and Prevention. The Rabies Compendium is published annually in the Journal of the American Veterinary Medical Association. This document is the definitive reference on animal rabies control issues and the AVMA approves and adopts the information annually. This version of the Idaho rabies protocol refers to information found in the 2007 Rabies Compendium available at <http://www.nasphv.org/documentsCompendia.html>. Decisions on animal rabies control issues in Idaho should always reference the most recent edition of the Rabies Compendium.

Rabies in animals:

In wild or stray animals and pets a change in normal behavior is the most common sign of rabies. The rabies virus may attack any part of the brain leading to varying behavioral changes. Rabies is virtually 100% fatal. Each form of rabies ends in paralysis, coma, and death.

There are two common clinical forms of rabies in animals:

"Dumb" Rabies: An animal may become shy or hide or become unusually approachable. This may be followed by sluggishness, confusion, or depression.

"Furious" rabies: An animal may become excitable, irritable, and aggressive. At times, it may seem confused and calm, then attack suddenly when approached. The animal may lose all caution for natural enemies.

Other signs of rabies include: Daytime activity in animals normally active at night, staggering, weakness, paralysis, a change in the sound of the animal's voice, inability or reluctance to eat or drink, drooling, convulsions, and excessive salivation or frothing at the mouth.

Rabies-susceptible animal: All warm-blooded animals are susceptible to rabies infection. Reptiles, birds, amphibians, insects, and arachnids are not considered rabies-susceptible species. Rodents and opossums are thought to be less likely to become infected; however, there has been documentation of rabies in these species. (Wyoming reported a rabid squirrel in 2000 infected with the bat strain of rabies). Opossums are believed to be fairly resistant to infection; however, there have been reports in the literature of rabid opossums (Oklahoma had a rabid opossum in 2001 infected with the skunk strain of rabies). Therefore, interaction with these species is also considered a rabies risk, but should be handled on a case-by-case basis.

State Public Health Laboratory: Idaho Department of Health and Welfare, Bureau of Laboratories, Virology section, Boise (208) 334-2235 ext 228

USDA: United States Department of Agriculture. Boise office: (208) 378-5631

Under owner's control: Refers to the isolation of an animal, at the owner's premises, ensuring no exposure to the public or other animals. See **strict isolation** section of quarantine definition.

Wild animal: Animals other than dogs, cats, horses, and ferrets or livestock that are held in captivity. They include wolves, wolf-hybrids, and other captive wildlife.

Wildlife: Non-domestic animals that are not held in captivity. Free-ranging wildlife includes bats, raccoons, foxes, skunks, bears, rodents, mustelids, canids, and felids. This definition does not include dogs, cats, ferrets, horses, or livestock.

Wolf: The Idaho Department of Fish and Game defines a wolf as a canid with the following characteristics:

1. The eyes shine greenish orange.
2. The ears are rounded and smaller in proportion to those of the coyote.

3. The snout is broad with the nose pad wider than 1 (one) inch in the adult.
4. The legs are long. An adult would stand approximately 26 to 32 inches at the shoulder.
5. The length is 4.5 to 6 feet from the tip of the nose to the tip of the tail.
6. An adult typically weighs at least 80 pounds.
7. The tail is carried high or straight out when running.
8. The fur is long and coarse. It varies from white to black but is generally grayish in coloration resembling the coyote. The under-parts are not as white and the legs and feet are not as red as those of the coyote.

"Any person who obtains or possesses a canine exhibiting primary wolf characteristics or who captures a wolf alive or possesses or obtains a wolf that was born or held in captivity for any purpose must apply for a license for each animal within three (3) days of possession, capture or commencement of captivity. Application for a license for each animal shall be made on a form prescribed by the Department and must be completed and returned to the Department within two (2) weeks. Applicants shall have each animal properly tattooed by a qualified veterinarian. The veterinarian shall certify that the animal has been tattooed on the license application." (See IDAPA 13.01.10). Each captive animal so identified as a wolf must be individually identified with a tattoo on the right flank or inside the right ear by a qualified veterinarian. All animals over the age of 6 months must be tattooed. An annual license is required in Idaho through the Idaho Department of Fish and Game Regional Office. Call your local regional office for more details.

Wolf hybrid: A wolf hybrid is a cross between a pure wolf and a dog or another wolf/dog hybrid, usually, but not always Malamutes, Huskies and German Shepherds. Hybrids tend to be heavier and taller than wolves. The owners are responsible for declaring an animal a wolf-hybrid. The rabies vaccine is not approved for wolf hybrids. Home quarantine or isolation of hybrid animals exposed to a rabid animal is not an approved approach. There is no known literature differentiating wolf-hybrid management based on the variable percentage of wolf heritage.

According to the 2007 Rabies Compendium, wild mammals and hybrids that bite or otherwise expose persons, pets, or livestock should be considered for euthanasia and rabies testing. Until a study is carried out to describe rabies shedding characteristics in wolf hybrids, the CDC recommends this approach.

VI. First Aid Treatment

All situations involving humans being bitten by animals or being exposed to a potentially rabid animal including a bat should be referred to a health care provider immediately.

It is the responsibility of the health care provider and patient to make decisions regarding the necessity of rabies post-exposure prophylaxis. However, state or district public health officials frequently can aid the health care provider in making educated decisions about rPEP usage, based on the nature of the bite and the epidemiology of rabies in Idaho (see Reporting Requirements, section II).

Immediate and thorough treatment of bite wounds and scratches is an important first step to preventing rabies infections. Scrubbing with soap and water and, if available a viricidal agent such as a povidone-iodine solution should be done immediately. Tetanus

prophylaxis and measures to prevent bacterial infection should always be considered. It is recommended that sutures not be used unless it is unavoidable for cosmetic or tissue support reasons. If sutures are to be used, they should be placed only after local infiltration with rabies immune globulin (RIG), the sutures should be loose, and should not interfere with bleeding or drainage.

VII. Protocol for Rabies Prophylaxis and Animal Management

Numerous scenarios encountered with domestic animals, livestock, wild animals, or wildlife are described below. Suggested guidelines appropriate to each scenario are included. Additional scenarios are possible and should be handled on a case-by-case basis.

A. A dog, cat, or ferret bites a human

Always advise the victim (exposed person(s)) to thoroughly wash wounds with soap and water and, if available, a viricidal agent such as a povidone-iodine solution and seek medical attention immediately to discuss the need for rPEP. If the healthcare provider has questions regarding the epidemiology of rabies in Idaho, refer them to the State Office of Epidemiology and Food Protection at (208)-334-5939 or the on-call after-hours public health pager carrier, which may be accessed through the State Communications Hotline at 1-800-632-8000. Rabies post-exposure prophylaxis in exposed person(s) may be delayed during the animal's 10-day quarantine period unless rabies is diagnosed in the biting animal during that time.

1. The biting animal **was** appropriately vaccinated as described in the Rabies Compendium (vaccine coverage had not expired at the time of the attack) and **is** available for quarantine or testing.
 - a. The dog, cat, or ferret must be examined by a licensed veterinarian within 24 hours of the incident. If not found to be exhibiting signs of rabies, the animal shall be impounded for ten (10) days and observed daily for any illness or behavioral change. Vaccination of impounded animals is not recommended as vaccine reactions may be confused with initial signs of rabies. If there is evidence of illness or unusual behavior during impoundment, the licensed veterinarian should examine the animal immediately. Any illness in the animal should be reported to the local district health department immediately.
 - i. The examining veterinarian must submit the head to the IBL for rabies testing according to the rabies submission form guidelines found in section XI under the following circumstances:
 - If the animal **does** show signs of rabies during the ten-day observation period, it must be euthanized immediately, and the head submitted for testing.
 - If the animal dies during the 10-day observation period the head must be submitted immediately for testing.

The veterinarian should communicate these facts to the local district health department and the Idaho State Department of Agriculture authorities as soon as possible. Test results will be relayed to the appropriate persons as soon as they are available.

ii. If the animal does not show signs of rabies during the 10-day quarantine period, the animal is released from impoundment,

or

b. The dog, cat, or ferret may be euthanized and the head submitted to IBL for rabies testing according to the rabies sample submission protocol outlined in section XI.

2. The biting animal was **not** appropriately vaccinated or has an unknown vaccination history and **is** available for quarantine or testing.

a. With domestic animals, If the bite was provoked or unprovoked, the animal must be examined by a licensed veterinarian, and if not found to be exhibiting signs of rabies, impounded for ten days as described above.

i. The examining veterinarian must submit the head to the IBL for rabies testing according to the rabies submission form guidelines found in section XI under the following circumstances:

- If the animal **does** show signs of rabies during the ten-day observation period, it must be euthanized immediately, and the head submitted for testing.
- If the animal dies during the 10-day observation period the head must be submitted immediately for testing.

The veterinarian should communicate these facts to the local district health department and Idaho State Department of Agriculture authorities as soon as possible. Test results will be relayed to the appropriate persons as soon as they are available.

ii. If the animal **does not** show signs of rabies during the 10-day quarantine period the animal must be reexamined and vaccinated against rabies by a licensed veterinarian **prior** to being released from impoundment. *or*

b. The dog, cat, or ferret may be euthanized and the head submitted to the State Public Health Laboratory for rabies testing.

3. The biting animal is **not** available for quarantine or testing.

a. Refer the victim to a healthcare provider for possible rPEP.

B. A wild animal or wildlife bites a human (see section C for bat bites).

Terrestrial rabies, strains of rabies found in the fox, raccoon, coyote, and skunk have not been found in Idaho to date. Sporadically, a few other animals have been

documented with rabies in Idaho because all mammals are susceptible to the virus. A skunk (2004), a cat (in 1992), a cat (in 1991), a bobcat (in 2001) and a horse (in 1999) tested positive for rabies; however, all 5 animals were infected with the bat strain of rabies (see Table 2).

It is important to realize that all mammals have the potential to carry and transmit rabies; consequently, exposures to animals other than bats may have the potential to lead to rabies. Laws exist in Idaho stating that no one may possess, offer for sale, trade, barter, exchange or import fox, raccoon, and skunk except under certain situations related to the fur trade. These species are major rabies reservoirs in other states. See section XIV which contains the law (Title 25, Chapter 2, section 236). Adherence to this law may help reduce the chances of introducing terrestrial rabies into Idaho.

Bites from rodents and opossums pose unique situations and should be handled on a case-by-case basis. Little to no risk is known to exist of contracting rabies from a rodent bite. However, it is important to realize that, although extremely rare, recent examples of rabies in rodents include a rabid opossum (Oklahoma, 2001), a rabid squirrel (Wyoming, 2000) and a rabid beaver (Virginia, 1999).

1. The wild animal or wildlife **is** available for testing:
 - a. The animal must be euthanatized in a humane manner immediately and the head submitted to the State Public Health laboratory for testing. Follow guidelines found on the rabies submission form found in section XI. Shipment should not be delayed. Testing ideally must be completed within 10 days of an exposure. Animals maintained in USDA licensed research facilities or accredited zoological parks should be evaluated and managed on a case-by-case basis.
 - b. Refer the victim to a healthcare provider. rPEP usage is determined by animal test results, if the animal is available for testing. If the rabies test of the wild animal is positive (+), rPEP should be started immediately. rPEP may be delayed during the testing process, but the delay should not exceed 10 days from the exposure date. The use of rPEP may occur even during the waiting period if the behavior of the animal was consistent with rabies and the bite was on or near the persons head.
2. The wild animal or wildlife **is not** available for testing:
 - a. Refer the victim to a healthcare provider immediately to discuss possible rPEP usage. The use of rPEP may occur if the behavior of the animal was consistent with rabies.

C. A human is possibly exposed to a bat

Bats are the only species in which rabies is enzootic in Idaho. In a typical year, approximately 10% of bats submitted to the IBL are found to be rabid. This does not imply that the percentage of rabid bats in the bat population at-large is the same because sick bats are more likely to be seen during the day and collected for testing.

1. The bat **is** available for testing and the possibility of an exposure cannot be

excluded:

- a. If there is concern that contact or a bite occurred, the bat must be submitted for rabies testing, according to the rabies sample submission guidelines found in Section XI. Bats will **not** be held for a 10-day observation period. Methods of humane euthanasia for the bat should be employed while avoiding damage to the head. Ideally the animal would be euthanized by a currently vaccinated licensed veterinarian or euthanasia technician.
The bat should never be handled with bare hands or without eye protection.

- b. Recommend thorough wound cleansing as described above if a wound is present and refer the victim to a healthcare provider immediately for a discussion regarding possible rPEP usage. rPEP usage is determined by animal test results or, in the absence of animal testing, level of suspicion. If the rabies test of the bat is positive (+), rPEP should be started immediately. rPEP may be delayed during the testing process but the delay should not exceed 10 days from the exposure date.

2. The bat **is not** available for testing.

- a. Recommend thorough wound cleansing as described above, if a wound is present, and refer the victim to a healthcare provider immediately for discussions regarding possible rPEP usage. Bat rabies is common in Idaho; therefore, rPEP must be seriously considered after any suspect bat encounter, particularly if the bat is unavailable for testing.

D. A potentially rabid livestock animal exposes a human (livestock in section F)

Livestock such as cattle have been documented with two forms of rabies; furious and dumb (see definitions section). With the dumb form the animal may appear more listless than usual, salivate excessively, or appear to be choking. Several instances of human exposure have been documented after owners tried to alleviate a 'choke' situation.

1. The animal **is** available for testing:

- a. Refer to the Idaho State Department of Agriculture, Division of Animal Industries, at (208) 332-8540, for management of the animal. If the animal is determined to be rabid, tissues and products from the rabid animal should not be used for human or animal consumption. Un-pasteurized milk should not be consumed. According to the 2007 Rabies Compendium, pasteurization temperatures will inactivate rabies virus; therefore, drinking pasteurized milk or thoroughly cooked animal products does not constitute a rabies exposure. The CDC is very interested in milk and mammary tissue from lactating rabid animals to further the scientific understanding of rabies and lactation. Should this situation arise, contact the State Public Health Laboratory for assistance.
- b. Recommend thorough wound cleansing as described above, if a wound is present, and refer the victim to a healthcare provider immediately for discussions regarding possible rPEP usage.

2. The animal **is not** available for testing:
 - a. Recommend thorough wound cleansing as described above, if a wound is present, and refer the victim to a healthcare provider immediately for discussions regarding possible rPEP usage.

E. A wild animal or wildlife (including bats) bites or otherwise exposes a dog, cat, or ferret

No terrestrial rabies (rabies strains found in the fox, raccoon, skunk, or coyote) has been identified in Idaho to date; however, the bat strain of rabies may infect most animals under the right circumstances. There have been numerous instances in Idaho (Table 2) where other mammals have been documented with the bat strain; therefore, a bite from any mammal should be considered a risk for rabies infection. Bites from rodents and opossums pose unique situations and should be handled on a case-by-case basis.

1. The wild animal or wildlife (including a bat) **is** available for testing:
 - a. The wild animal or wildlife (including a bat) must be immediately euthanatized humanely, avoiding methods that target the head. **Gloves, masks, and eye protection must be worn during this process.** If the animal is large, the head must be removed by an individual who understands the risks associated with a potentially rabid animal, avoiding direct contact with any nervous tissue and avoiding cuts or mucous membrane exposures. Ideally this person is already vaccinated against rabies (e.g. most veterinarians). The entire bat must be submitted to the Idaho State Public Health Laboratory for rabies testing according to the rabies sample submission form guidance in Section XI. Larger animals and heads are submitted to the Idaho State Department of Agriculture Laboratory (208-332-8570) first for brain removal before IDHW can test the brain. Call the appropriate agency listed above to assure that samples are handled properly so testing delays are avoided.
 - b. Place the bitten **domestic** animal under **strict isolation** while awaiting test results.
 - c. If the rabies test of the wild animal or wildlife (bat) is negative (-), release the domestic animal. Assure that the domestic animal is currently vaccinated against rabies as recommended by the American Veterinary Medical Association (AVMA) by a licensed veterinarian if the animal is unvaccinated or when vaccinations have expired.
 - d. If the rabies test of the wild animal or wildlife (bat) is positive (+), and the exposed dog, cat, or ferret **is** appropriately vaccinated:
 - i. The dog, cat, or ferret must be examined by a licensed veterinarian, **re-vaccinated by the veterinarian against rabies at once**, as recommended by the American AVMA, and placed under the **owner's control for 45 days**. The recommendation to use "**owner's control**" rather than "**strict isolation**" should be based on the likelihood of owner compliance. A veterinarian with the Idaho State Department of Agriculture

may assist in the quarantine agreement. (See section X- quarantine letter).

- e. If the rabies test of the wild animal or wildlife (bat) is positive (+), and the dog, cat, or ferret **is not** appropriately vaccinated.
 - i. The dog, cat, or ferret must be examined by a licensed veterinarian and placed under **strict isolation** for six months (180 days) in a humane, ISDA-approved home-quarantine structure. The unvaccinated animal must be vaccinated upon **entry** into the 6 month isolation period as recommended by the AVMA by a licensed veterinarian. The alternative is to vaccinate the animal one (1) month prior to release from isolation; however, vaccination upon entry is preferred. A veterinarian with the Idaho State Department of Agriculture may assist with the development of an appropriate home-quarantine structure (See section X- quarantine letter). One month prior to the end of the evaluation period (at 5 months of quarantine), the animal must be re-examined by the same licensed veterinarian. Animals must be re-examined by the same veterinarian again at the end of the isolation period as well (at 6 months), prior to quarantine release.

or

- ii. Unvaccinated dogs, cats, and ferrets exposed to a known rabid animal may be euthanized immediately. There is no need to test the head of these animals if they are euthanized right away as the rabies virus will not have had time to migrate to the brain or to the salivary glands. However, testing is available upon request.
 - f. Situations involving animals with **expired vaccinations** shall be addressed on case by-case basis. Discuss the situation with the Idaho State Department of Agriculture veterinarian.
2. The wild animal is **not** available for testing:
Any dog, cat, or ferret potentially exposed to a wild animal or wildlife (bat) that is not available for testing, should be regarded as having been exposed to rabies and handled as described above. (E.1. d-f).

F. A wild animal or wildlife (including bats) bites or otherwise exposes livestock

Call the Idaho State Department of Agriculture, Division of Animal Industries, at (208) 332-8540, for appropriate action. The 2007 Rabies Compendium describes vaccination and observation procedures for currently vaccinated and unvaccinated livestock, including horses. The Rabies Compendium states that animals that have frequent contact with humans (e.g., in petting zoo, fairs, and other public exhibitions) and horses traveling interstate should be currently vaccinated against rabies.

Livestock are susceptible to rabies. If livestock are exposed to a rabid animal and currently vaccinated, according to the 2007 Rabies Compendium, the animal should be revaccinated immediately and observed for 45 days for signs of rabies.

If livestock are unvaccinated, they are either euthanized immediately or kept under close observation for 6 months.

According to the 2007 Rabies Compendium, if an exposed animal is to be slaughtered for consumption, it should be done immediately after exposure using barrier precautions being used by persons handling the animal and tissues. All tissues must be cooked thoroughly.

G. A wild animal or wildlife (including bats) bites or otherwise exposes another captive wild animal or wildlife

1. The victim-animal should be **impounded** until it can be determined whether the rabies-suspect wild animal or wildlife that bit the victim-animal is infected or free of rabies. If the rabies-suspect animal (the animal inflicting the wound or exposure) is found to be free of rabies, the victim-animal may be released from impoundment.
2. If the rabies-suspect animal is found positive for rabies, the victim-animal should be euthanized at once OR evaluated and managed on a case-by-case basis.
3. If the rabies-suspect animal is unavailable for testing, the victim-animal may be euthanized at once OR evaluated and managed on a case-by-case basis.
4. Animals in zoo collections, species of special concern and endangered species will be evaluated and managed on a case-by-case basis. Animals maintained in exhibits and zoological parks that are not completely excluded from contact with rabies vectors can become infected. Wild-caught rabies-susceptible animals must be quarantined for a minimum of 6 months, according to the 2005 CARC, prior to exhibition.

H. An animal exhibits unusual behavior, but no contact or bite occurred

(In some species) infections with rabies and West Nile virus are indistinguishable clinically. Any time that an animal dies or is euthanized due to an undiagnosed neurological illness, rabies should be considered to allow for appropriate public health testing and follow-up before disposal of the animal (2005 CARC)

1. Is the animal species susceptible to rabies (i.e., warm-blooded)? (See Section I).
 - a. Yes: Contact the Idaho State Department of Agriculture, (332-8540), or the IBL (332-2235 x 228) to discuss testing procedures or call a local veterinarian.
 - b. No: Do not test animal.
2. Livestock should always be referred to the Idaho State Department of Agriculture, Division of Animal Industries, at (208) 332-8540, for appropriate action.

I. Wild animals, wildlife, and hybrids

The 2007 Rabies Compendium states: "The safety and efficacy of parenteral rabies vaccination of wildlife and hybrids have not been established, and no rabies vaccines are licensed for these animals. Parenteral vaccination (trap-vaccinate-release) of wildlife rabies reservoirs may be integrated into coordinated oral rabies vaccination

programs as described in Part I.C.1.to enhance their effectiveness. Zoos or research institutions may establish vaccination programs, which attempt to protect valuable animals, but these should not replace appropriate public health activities that protect humans.”

VIII. References and Credits

1. Investigation of Rabies Infections in Organ Donor and Transplant Recipients: Alabama, Arkansas, Oklahoma, and Texas, 2004.
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5326a6.htm> .
Multiple MMWRs referring to the same topic:
Vol 53d, No 701;1 07/01/2004
Vol 53, No D;1 07/09/2004
Vol 53, No 26;586 07/09/2004
Vol 53, No 27;615 07/16/2004
2. Recovery of a Patient from Clinical Rabies--Wisconsin, 2004.
MMWR *Vol 53, No 50;1171, 12/24/2004*
<http://www.cdc.gov/mmwr/PDF/wk/mm5350.pdf> .
3. Rules and Regulations Governing Idaho Reportable Diseases,
<http://www2.state.id.us/adm/adminrules/rules/idapa16/0210.pdf> .
4. 2007 Compendium of Animal Rabies Prevention and Control, National Association of State Public Health Veterinarians. National Association of State Public Health Veterinarians web site: <http://www.nasphv.org/documentsCompendia.html>
5. Human Rabies Prevention-- United States, 1999, Advisory Committee on Immunization Practices (ACIP) of the Public Health Service (MMWR: Jan 8, 1999/Vol 48/No. RR-1).

IX: Human Rabies Case Information

Table 3. Cases of rabies in human beings, by circumstances of exposure and rabies virus variant— USA, 1990–2006*

Date of death	State of residence	Exposure history**	Rabies virus variant ⁺
1990	TX	Bat bite – TX	Bat, Tb
1991	TX	Unknown [#]	Dog/coyote
1991	AR	Unknown [#]	Bat, Ln/Ps
1991	GA	Unknown [#]	Bat, Ln/Ps
1992	CA	Dog bite – India	Dog, India
1993	NY	Unknown [#]	Bat, Ln/Ps
1993	TX	Unknown	Bat, Ln/Ps
1993	CA	Dog bite – Mexico	Dog, Mexico
1994	CA	Unknown	Bat, Ln/Ps
1994	FL	Unknown – Haiti	Dog, Haiti
1994	AL	Unknown [#]	Bat, Tb
1994	WV	Unknown [#]	Bat, Ln/Ps
1994	TN	Unknown [#]	Bat, Ln/Ps
1994	TX	Unknown	Dog/coyote
1995	WA	Unknown [#]	Bat, Msp
1995	CA	Unknown [#]	Bat, Tb
1995	CT	Unknown	Bat Ln/Ps
1995	CA	Unknown [#]	Bat, Ln/Ps
1996	FL	Dog bite – Mexico	Dog, Mexico
1996	NH	Dog bite – Nepal	Dog, SE Asia
1996	KY	Unknown	Bat, Ln/Ps
1996	MT	Unknown	Bat, Ln/Ps
1997	MT	Unknown [#]	Bat, Ln/Ps
1997	WA	Unknown [#]	Bat, Ef
1997	TX	Unknown [#]	Bat, Ln/Ps
1997	NJ	Unknown [#]	Bat, Ln/Ps
1998	VA	Unknown	Bat, Ln/Ps
2000	CA	Unknown [#]	Bat, Tb
2000	NY	Dog bite – Ghana	Dog, Africa
2000	GA	Unknown [#]	Bat, Tb
2000	MN	Bat bite – MN	Bat, Ln/Ps
2000	WI	Unknown [#]	Bat, Ln/Ps
2001	CA	Unknown [#] –Phillipines	Dog, Phillipines
2002	CA	Unknown [#]	Bat, Tb
2002	TN	Unknown [#]	Bat, Ln/Ps
2002	IA	Unknown [#]	Bat, Ln/Ps
2003	VA	Unknown	Raccoon
2003	PR	Dog bite	Dog/mongoose
2003	CA	Bite	bat

Table 3, continued.

Year of death	State of residence	Exposure history**	Rabies virus variant*
2004	FL	Bite	Dog, Haiti
2004	AR	Organ recipient, organ donor bitten	Bat
2004	OK	Liver recipient	Bat
2004	TX	Kidney transplant	Bat
2004	TX	Arterial transplant	Bat
2004	TX	Kidney transplant	Bat
Survived	WI	Bite	Bat
2005	MS	Unknown	Bat
2006	TX	Unknown	Bat
2006	CA	Bite	Dog
2006	IN	Bite	Bat

*All laboratory-confirmed cases of rabies in humans in the U.S.

X: Idaho State Department of Agriculture Quarantine Notification Letter



STATE OF IDAHO

C.L. "BUTCH" OTTER
Governor
CELIA R. GOULD
Director

**DEPARTMENT OF AGRICULTURE
DIVISION OF ANIMAL INDUSTRIES**

2270 Old Penitentiary Road
P.O. Box 7249 Boise, Idaho 83712
Ph: 208-332-8540 Fax: 208-334-4062

date

Inside address

Dear :

As a followup to our phone conversation, this letter is being sent to you detailing the conditions under which a rabies-exposed pet could be quarantined at home. This allowance will be subject to an onsite inspection by the Idaho Department of Agriculture and/or the local Health District.

The requirements for an approved quarantine facility include:

1. Solid sides or double fencing on the cages so that no inadvertent human or animal contact is possible. *(Note: When double-fencing, the outer cage fencing should be of tight gauge wire such as chicken wire, and should be spaced far enough from the inner cage fencing so that children, adults or other animals cannot put their fingers or paws through and contact the quarantined animal)*
2. Solid or substantial flooring so the animal cannot dig out.
3. A lock on the gate so only authorized people can open the pen.
4. A plan for veterinary oversight of the quarantine facility so that the health of the animal can be documented.
5. If your animal shows any signs of illness, you will report the problem to your veterinarian and to the State Veterinarian's office immediately.
6. Periodic site inspections may be conducted by the Department of Agriculture or Health District personnel.

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7. Since your animal was adequately (inadequately) vaccinated at the time of exposure to the RABID (or POTENTIALLY RABID) _____, the animal must be quarantined for a period of 45 days (6 months) from the time of rabies exposure:

Release Date:

8. Your animal must be vaccinated for rabies by a licensed veterinarian (ideally at the start of the quarantine period) but no later than one month before the end of the quarantine period.
9. Rabies is a potentially deadly disease for humans and animals. Therefore, there must be no human contact with the quarantined animal(s) for the duration of the quarantine period. Please take proper precautions while feeding and caring for your other pets so that no direct contact with the quarantined animal(s) occurs during the quarantine period.

If this plan for home quarantine is acceptable to you, please sign this letter and return it to the State Veterinarian's office within 7 days.

If any other cats, dogs, or other pets in your house have had any contact with the exposed animals, they should be observed for ten days for any signs of rabies. Any problems must be reported to your veterinarian immediately.

If you have any further questions, please don't hesitate to contact us at (208) 332-8540 or 332-8570.

Sincerely,

Marilyn M. Simunich, DVM
Assistant State Veterinarian
Idaho State Department of Agriculture

(Signature of Owner and Date)

cc: State Veterinarian
Idaho Animal Health Inspector
Idaho Department of Health & Welfare
Local District Health Department
Owner's Veterinarian

XI: Rabies Laboratory Submission Form

The actual form comes in triplicate

Please call the Idaho Bureau of Laboratories (334-2235, x 228) for triplicate forms or make sure that a copy goes to each of the following destinations:

1. Idaho Bureau of Laboratories (State Public Health Laboratory)
2220 Old Penitentiary Rd.
Boise, ID 83712
2. State Agriculture Laboratory
2230 Old Penitentiary Rd.
Boise, ID 83712
3. 1 copy stays with the Submitter.

RABIES LABORATORY FORM	IDAHO DEPARTMENT OF AGRICULTURE ATTN: SANDY KAUFMAN 2230 OLD PENITENTIARY ROAD BOISE, ID 83712 (208) 332-8570
Date Submitted: _____ Carrier: Bus () UPS () FEDEX () Other: _____ (Notify virology lab prior to shipment (208) 334-2235 x231)	Date Rcvd: _____ Date Rptd: _____ <p style="text-align: center;">(Lab Use Only)</p>
VETERINARIAN:	OWNER/SUBMITTER:
_____ (Name)	_____ (Name)
_____ (Address)	_____ (Address)
_____ (City, State, County)	_____ (City, State, County)
Phone: _____	Phone: _____
BITING ANIMAL INFORMATION:	
Species: _____ Age: _____ Sex: _____ Weight: _____ Vaccine Date: _____	
EXPOSURE INFORMATION:	
Date of exposure: _____ Person/s exposed: _____ Phone: _____ Animal exposed: _____ Species: _____ Number: _____ Vaccine status: _____	
<input type="checkbox"/> Provoked attack <input type="checkbox"/> Bite <input type="checkbox"/> Scratch <input type="checkbox"/> Saliva contamination of: <input type="checkbox"/> Unprovoked attack <input type="checkbox"/> Handled Bat <input type="checkbox"/> Mucous membranes <input type="checkbox"/> Woke with bat in room <input type="checkbox"/> Open wounds	
Body Part exposed: _____	
ADDITIONAL INFORMATION: _____	
<p>GENERAL INFORMATION: All Positive results will be immediately called to the appropriate people. In order to facilitate decisions regarding treatment it is critical that the specimen be tested as soon as possible.</p> <p>In Idaho, nearly all cases of animal rabies have occurred in bats. Often when humans are infected with rabies from bats, no bite is known to have occurred. For this reason BAT EXPOSURES MUST BE GIVEN HIGHEST PRIORITY and even casual exposures to bats must be carefully evaluated.</p> <p>PACKING INFORMATION: Only the head should be submitted if the animal weighs over 8 lbs. The head must be kept cold until testing. For animals weighing between 8-20 lbs, there will be a charge of \$30.00 to dispose of the carcass. No "whole" animals weighing over 20 lbs. will be accepted.</p> <ol style="list-style-type: none"> 1. Double bag specimen in heavy plastic bags and wrap in absorbent material. 2. Place in a rigid insulated container with appropriate number of "blue ice" blocks to assure the package remains cool until it reaches the lab. Freezing does not invalidate the results but may delay testing. 3. Label as "Diagnostic Specimen" and attach a biohazard label to outside of package. Use the fastest shipping method available and send to Idaho Agriculture Lab, 2230 Old Penitentiary Road, Boise, ID 83712. <p>For added information call: IDAHO STATE LABORATORY (208) 334-2235 IDAHO STATE AGRICULTURE LABORATORY (208) 332-8570 IDAHO STATE EPIDEMIOLOGIST (208) 334-5941</p>	
COPY DISTRIBUTION: WHITE - STATE LAB CANARY - AGRICULTURE LAB PINK - SUBMITTER	

XII. AVMA Model Rabies Control Ordinance, 2007 and AVMA Policy Statements and Guidelines

According to the Rabies Compendium, local governments should initiate and maintain effective programs to assure vaccination of all dogs, cats, and ferrets and to manage strays and unwanted animals. Such procedures in the U.S. have reduced laboratory confirmed cases of rabies in dogs from 6,949 in 1947 to 76 in 2005 (2007 Rabies Compendium). Because more rabies cases are reported annually involving cats (269 in 2005) than dogs, vaccination of cats should also be required. The AVMA model rabies control ordinance (Approved by the AVMA House of Delegates, 1999; revised AVMA EB 2003; 2004; 2005; 2007) may be found at the following website:
http://www.avma.org/issues/policy/rabies_control.asp

XIII. Idaho Rabies Ordinances by City

All cities listed below have provided electronic links to their existing rabies ordinances through the Idaho Association of Cities home page: <http://www.idahocities.org/> or are otherwise designated as having rabies ordinances. Not all ordinances may be listed here.

Ammon

<http://www.ammoncity.com/title5.htm>

Blaine County

<http://www.sterlingcodifiers.com/ID/Blaine%20County/index.htm>

Boise

http://www.cityofboise.org/city_clerk/citycode/0607.pdf

Caldwell

<http://www.sterlingcodifiers.com/ID/Caldwell/index.htm>

Canyon County

<http://www.sterlingcodifiers.com/ID/Canyon%20County/index.htm>

Challis

<http://www.sterlingcodifiers.com/ID/Challis/index.htm>

Chubbuck

<http://www.sterlingcodifiers.com/ID/Chubbuck/index.htm>

Couer d' Alene

<http://www.sterlingcodifiers.com/ID/Coeur%20dAlene/index.htm>

Council

<http://councilidaho.net/contentDetail.aspx?CityContentID=2142> and
<http://councilidaho.net/contentDetail.aspx?CityContentID=2149>

Eagle

<http://www.sterlingcodifiers.com/ID/Eagle/index.htm>

Emmett

<http://www.sterlingcodifiers.com/ID/Emmett/index.htm>

Fruitland

<http://www.sterlingcodifiers.com/ID/Fruitland/index.htm>

Garden City

<http://www.sterlingcodifiers.com/ID/Garden%20City/index.htm>

Genesee

<http://www.sterlingcodifiers.com/ID/Genesee/index.htm>

Glenns Ferry

Yes, rabies vaccination required for licensure. No web link available at this time, verbal indication that a rabies ordinance exists.

Grangeville

<http://www.sterlingcodifiers.com/ID/Grangeville/index.htm>

Hayden

<http://66.113.195.234/ID/Hayden/index.htm>

Hayden Lake

<http://www.sterlingcodifiers.com/ID/Hayden%20Lake/index.htm>

Jerome

<http://66.113.195.234/ID/Jerome/index.htm>

Kellogg

<http://www.sterlingcodifiers.com/ID/Kellogg/index.htm>

Kimberly

<http://www.cityofkimberly.org/Ordinance/ordinance.html>

Kootenai County

<http://www.sterlingcodifiers.com/ID/Kootenai%20County/index.htm>

Kuna

<http://www.sterlingcodifiers.com/ID/Kuna/index.htm>

Lewiston, ID

<http://www.codepublishing.com/ID/lewiston.html>

McCall, ID

<http://66.113.195.234/ID/McCall/index.htm>

Meridian, ID

<http://66.113.195.234/ID/Meridian/index.htm>

Middleton, ID

<http://www.sterlingcodifiers.com/ID/Middleton/index.htm>

Mountain Home, ID

<http://www.sterlingcodifiers.com/ID/Mountain%20Home/index.htm>

Nampa, ID

<http://66.113.195.234/ID/Nampa/index.htm>

New Plymouth, ID

<http://www.sterlingcodifiers.com/ID/New%20Plymouth/index.htm>

Pocatello, ID

(rabies vaccination required upon request of animal control officer, not clearly associated with licensure process)

<http://www.sterlingcodifiers.com/ID/Pocatello/index.htm>

Post Falls, ID

<http://66.113.195.234/ID/Post%20Falls/index.htm>

Priest River

<http://www.sterlingcodifiers.com/ID/Priest%20River/index.htm>

Rathdrum

<http://www.sterlingcodifiers.com/ID/Rathdrum/index.htm>

Sandpoint,

<http://66.113.195.234/ID/Sandpoint/index.htm>

Star

<http://www.sterlingcodifiers.com/ID/Star/index.htm>

Sugar City

<http://www.sterlingcodifiers.com/ID/Sugar%20City/index.htm>

Sun Valley

<http://66.113.195.234/ID/Sun%20Valley/index.htm>

Teton County

http://www.powdervalleyshadowbrook.org/Owner/Resources/teton_county_dog_ordinance.htm

Twin Falls

<http://www.sterlingcodifiers.com/ID/Twin%20Falls/>

Twin Falls County

<http://www.sterlingcodifiers.com/ID/Twin%20Falls%20County/index.htm>

State of Idaho: There is not a statewide rabies regulation at this time.

Rabies vaccination is required for all domestic animals and pets associated with Idaho licensed child care facilities (IADAPA 16.06.02 Section 756:

<http://adm.idaho.gov/adminrules/rules/idapa16/0602.pdf>)

XIV. Idaho Code Regarding Certain Rabies-Susceptible Species

TITLE 25

ANIMALS

CHAPTER 2

INSPECTION AND SUPPRESSION
OF DISEASES AMONG LIVESTOCK

25-236. SALE, TRADE, BARTER, EXCHANGE AND IMPORTATION OF ANIMALS.

(a) No person shall possess, offer for sale, trade, barter, exchange or importation into the state of Idaho any fox, skunk or raccoon, except as provided in subsection (b) of this section.

(b) An animal specified in subsection (a) of this section may be offered for sale, trade, barter, exchange or importation into the state of Idaho for commercial fur farming without the requirement of a permit; but an animal specified in subsection (a) hereof may be offered for sale, trade, barter, exchange or importation into the state to a public park, zoo, museum or educational institution for educational, medical, scientific or exhibition purposes only if the organization possesses a permit from the department of agriculture. The department of agriculture may refuse to issue a permit if the department finds that the organization requesting the permit does not have physical facilities adequate to maintain the animal in health and safety and to prevent the escape of the animal from confinement.