Animal Management:

Managing Other Animals that Bite Humans

When a domestic dog, cat or ferret bites a human, the animal must, under law (NC GS 130A-196), be confined for 10 days (http://epi.publichealth nc.gov/cd/lhds/manuals/rabies/docs/10day domestic.pdf), regardless of vaccination status, and observed for development of rabies. If the animal remains normal and healthy through the end of confinement, then no post-exposure prophylaxis (PEP) is required for the victim. Normal, healthy livestock (horses, cattle, goats, swine, etc.) that bite people, in a provoked manner, are typically observed for 15 days (See Management of Livestock that Bite Humans, http://epi.publichealth nc.gov/cd/lhds/manuals/rabies/docs/livestock mgmt.pdf) under the direction of the local health director.

Wild hybrids are regarded as wild animals in North Carolina and should be managed as wild animals in the event that a person is bitten. A 10-day confinement or observation period cannot be implemented for a wolf hybrid, cat hybrid, or a wild animal (see pp. 6-9 of Animal Rabies Vaccination: Requirements and Guidelines, http://epi.publichealth nc.gov/cd/lhds/manuals/rabies/docs/animal vax.pdf in this Manual) that bites a person because the shedding period for rabies virus is not known for hybrids or wild animals. Therefore, if a hybrid or wild animal bites a person, the animal should be humanely euthanized and the head submitted for rabies diagnostic testing at the State Laboratory of Public Health (http://slph.ncpublichealth.com/virology-serology/rabies.asp).

If a high-risk rabies vector (raccoon, bat, fox, skunk, woodchuck [groundhog], beaver or other wild carnivore) bites a person, there is no recognized confinement or observation period as there is in dogs, cats, ferrets or livestock. The required rabies challenge studies have not been accomplished to determine the rabies shedding period prior to clinical signs in these species. A bite inflicted by a high-risk rabies vector is considered an exposure to rabies unless the animal tests negative for rabies at the State Laboratory of Public Health. Rabies postexposure prophylaxis (PEP) is advised for the bite victim if the captured animal tests positive, OR if the high-risk animal has not been captured and tested with a negative result within 24 hours of the bite.

Low-risk wildlife (rabbits, squirrels, and small rodents) rarely test positive to rabies; nevertheless, the circumstances of exposure and animal health status and behavior should always be carefully assessed with a public health official to determine the need for testing the animal or for providing PEP to the victim if the animal is lost to follow-up.

Only mammals can be infected with rabies and potentially transmit the disease. Species that pose no risk of a rabies direct transmission include avians (e.g., chickens, ducks, geese, hawks, eagles, owls, and even vultures), reptiles (lizards, turtles, etc.), and amphibians (e.g., frogs).

Bites from other mammals, including exotic species like monkeys, have the potential to expose a person to rabies and should be reported immediately to the local health department. Management of other mammals depends on many factors including: the animal species; the circumstances of the exposure (bite, non-bite, provoked, or unprovoked); health status and behavior of the animal; and the animal’s potential for exposure to rabies, including, importantly, the exposing animal’s housing history since birth. The NASPHV
Compendium of Animal Rabies Prevention and Control
(www.cdc.gov/mmwr/preview/mmwrhtml/rr6006a1.htm?s_cid=rr6006a1_w) provides official
guidance for management of bites to humans from exotic and wild animals. The *shedding period* of rabies virus, prior to clinical signs, has not been determined for species other than
dogs, cats and ferrets, and since vaccination of exotics is considered “off-label,” euthanasia
and testing may be a necessary outcome. If a rarely encountered species bites a human,
and there is uncertainty about the risk of exposure to rabies virus, local health departments
and Animal Control are advised to consult with N.C. Veterinary Public Health (919-733-3419) for a detailed risk assessment. Even if the animal does not carry rabies, it may carry
other serious zoonotic diseases that can be transmitted to humans.

When a bite caused by a **monkey or primate** is reported to an animal control officer, local
health department or healthcare provider, always **call N.C. Veterinary Public Health (919-733-3419) for guidance.** The first question should always be: “**What type of monkey?**”
Certain species of Old World monkeys, primarily the macaques (genus *Macaca*), are likely
to be carriers of herpes B infection, a potentially serious and fatal disease in humans.
Macaque monkeys infected with herpes B virus usually have no or only mild symptoms, but
the virus can cause a rapid and fatal encephalomyelitis in humans after exposure. Bites,
scratches, percutaneous inoculations, and aerosol transmission have been reported with
herpes B virus. However, New World monkeys – those of Central and South American origin
– are not known to harbor or transmit the herpes B virus. For information on herpes B virus
testing for both exposed people and monkeys, see the herpes B virus web sites of the Viral
Immunology Center at Georgia State University (www2.gsu.edu/~wwwvir/) and the CDC
(www.cdc.gov/herpesbvirus).

In summary, any animal has potential to transmit **zoonotic diseases** – infectious diseases
transmissible under natural conditions from vertebrate animals to humans. While rabies is
often the primary zoonotic disease of concern, any animal – including pets like dogs, cats,
rodents, turtles, and snakes – can transmit infectious disease. Therefore, when handling
animals, people should always use appropriate personal protection, not eat or drink while
working or playing with animals, and wash their hands thoroughly with soap and water after
contact with all animals.