Assessing the Need for PEP

Administration of rabies PEP is a medical urgency, not a medical emergency. Persons who have been bitten by animals suspected or proven to be rabid should begin PEP as soon as possible. However, very long incubation periods (up to 1 year) have been reported in humans. Thus, when a documented or likely exposure has occurred, PEP is indicated regardless of the length of the delay, provided the clinical signs of rabies are not present. Under most circumstances, PEP should not be initiated if the bite was from a healthy dog/cat/ferret that is available for a 10-day quarantine. However, if during the 10-day quarantine period, the animal begins to show signs of rabies, the PEP should be started immediately and the animal tested as soon as possible.

Health care providers should evaluate each possible exposure to rabies and when necessary consult with the Alabama Department of Public Health regarding the need for rabies PEP.

In the US, the following factors should be considered in the rabies risk assessment before PEP is initiated:

- Type of exposure (bite vs. non-bite)
- The geographic location of the incident
- The type of animal that was involved
- Circumstances of the exposure (provoked or unprovoked)
- The vaccination status of the animal
- Whether the animal can be safely captured and tested for rabies

In general, the highest risk of rabies transmission is associated with bite exposure from terrestrial wild carnivores or bats (see **Decision Trees A** and **B**). Raccoons, skunks, foxes, and coyotes are the terrestrial animals most often infected with rabies. All bites by such wildlife must be considered possible exposures to the rabies virus. PEP should be initiated as soon as possible after patients are exposed to wildlife unless the animal has already been tested and shown not to be rabid. In addition, bats are increasingly implicated as important wildlife reservoirs for variants of rabies virus transmitted to humans. In all instances of potential human exposures involving bats, the bat in question should be safely collected, if possible, and submitted for rabies diagnosis. Rabies PEP is recommended for all persons with a bite, scratch, or mucous membrane exposure to a bat, unless the bat is available for testing and is negative for evidence of rabies. PEP might also be appropriate even if a bite, scratch, or mucous membrane exposure is not apparent when there is reasonable probability that such exposure might have occurred.

The likelihood of rabies in a domestic animal varies by region; hence, the need for PEP also varies. In the continental US, rabies among dogs is reported most commonly along the US-Mexico border and sporadically in area of the US with enzootic wildlife rabies. During most of the 1990s, more cats than dogs were reported rabid in the US. The majority of these cases were caused by the raccoon variant in the eastern US. The large number of rabies-infected cats might be attributed to fewer cat vaccination laws, fewer leash laws, and the roaming habits of cats. In many developing countries, dogs are the major vector of rabies; exposures to dogs in such countries represent an increased risk of rabies transmission. In the United States, a currently vaccinated dog, cat, or ferret is unlikely to become infected with rabies (see **Decision Tree C**). Although all species of livestock are

susceptible to rabies, they are infrequently found to be infected. Small rodents (i.e., squirrels, hamsters, guinea pigs, gerbils, chipmunks, rats, and mice) and lagomorphs (including rabbits and hares) are almost never found to be infected with rabies and have not been known to transmit rabies to humans (see **Decision Tree D**).

An unprovoked attack by an animal is more likely than a provoked attack to indicate that the animal is rabid. Bites inflicted on a person attempting to feed or handle an apparently healthy animal should generally be regarded as provoked.

Refer to the chart below and to the Decision Trees on the proceeding pages for specific guidelines.

Table 1. Rabies Post-Exposure Prophylaxis Schedule – US, 2008

Animal Type	Evaluation and Disposition of Animal	Exposure Prophylaxis Recommendations
Dogs, Cats, and Ferrets	• Healthy and available for 10 day quarantine • Rabid or suspected rabid • Unknown (i.e., escaped)	• Persons should not begin PEP unless animal develops clinical signs of rabies.* • Immediate PEP. • Consult local rabies officer or Alabama Department of Public Health officials
Skunks, raccoons, bobcats, foxes, and most other carnivores; bats	Regarded as rabid unless animal proven negative by laboratory tests. **	Consider immediate PEP
Livestock, small rodents, lagomorphs (rabbits and hares), large rodents (woodchucks and beavers), and other mammals	Consider individually.	Consult local rabies officer or Alabama Department of Public Health officials. Bites of squirrels, hamsters, mice, and rats, most other rodents, and rabbits almost never require PEP. Large rodents may be a risk.

* During the 10-day quarantine period, begin PEP at the first sign of rabies in a dog, cat, or ferret that has bitten someone. If the animal exhibits clinical signs of rabies, it should be euthanized immediately and tested.

** The animal should be euthanized and tested as soon as possible. Discontinue vaccine if rabies test results are negative.

Source: 2007 Georgia Rabies Control Manual (GA Epidemiology Branch, Division of Public Health, Department of Human Resources)