

MEMORANDUM

To: Files
From: John Pape, Epidemiologist, Communicable Disease Epidemiology Program
Date: May 17, 2000
RE: 1999 Rabies Summary

The epidemiology of rabies in Colorado remained static in 1999. Specimen submissions increased from the previous year due to the record number of bats (n=330) submitted for testing. A record number of bats were positive (n=51), the only rabies positive species reported. It has been four years since the last case of terrestrial mammal rabies, a fox infected with a bat rabies virus variant, was reported in the state (Table I).

After bats, dogs and cats are the most commonly tested species due to their involvement in human bites (Table II). These three species accounted for 82% of all tests. The increased number of bats tested over the past several years is probably a direct result of increased awareness about bat rabies among animal control, veterinarians, health care providers and the public. Although the total number of tests and positive bats increased, the rate of infection among submitted bats was 15%, consistent with mean positive rate over the past 20 years. As testing large numbers of bats does not provide additional, useful surveillance information, submissions should be limited to bats with possible human or pet exposures.

The number of raccoons tested (n=60) increased sharply due to an outbreak of canine distemper along in metro Denver. Distemper can cause a wide-spread die-off with infected animals exhibiting neurological symptoms, abnormal behavior and loss of fear of humans which can mimic a rabies infection. This results in public concern and potential exposures as people try to assist sick animals. The public health response is to test representative specimens for rabies and distemper to document the etiology of the outbreak and insure raccoon rabies has not been introduced into the area. If distemper is confirmed, public recommendations can be made and further rabies testing limited to raccoons involved in human or pet exposures.

The reintroduction of skunk rabies into Colorado remains a distinct possibility as the Wyoming skunk rabies enzootic area continues to expand. After a decade of being confined to the northeast corner of the state, in 1998 skunk rabies appeared in the Casper, WY area and late in 1999 was reported in Riverton, WY. Given the harsh terrain, the absence of waterways, and lack of cases between these three areas Wyoming officials don't believe the expansion was the result of natural spread. Rather it appears the disease was introduced to the area possibly by skunks being transported in livestock or hay trucks. This moves the enzootic front to less than 150 miles from the Colorado border, a short truck ride away.

The number of persons known to have received post-exposure prophylaxis has been increased over the past several years due to the new recommendations on treatment following exposure to bats. Forty percent of the reported treatments were for exposures to bats and 17% were for exposure to raccoons; the animal was not available for testing in 80% of these cases (Table III). The 70 reported treatments underestimates the actual number of treatments administered, especially for dog and cat bites. Physician may be unfamiliar with the epidemiology of rabies in Colorado, prefer a conservative approach or a patient may insist on treatment and thus the physician initiates prophylaxis for a dog or cat bite without obtaining a consultation. In four cases involving dog or cat bites, treatment was started though the biting animal was available (3 tested negative, 1 remained alive 10 days post-bite but the series was continued).