RABIES PROPHYLAXIS
REQUIREMENT FOR DVM STUDENTS

COLLEGE OF VETERINARY MEDICINE
AND BIOMEDICAL SCIENCES
COLORADO STATE UNIVERSITY

In 2007 there was an increase in the number of terrestrial mammals with rabies in the state of Colorado. Rabies is often a fatal disease and our students are at a higher risk for exposure to rabies-infected animals than the general public. This policy reflects a top priority in the college, to provide our students an excellent and safe education.

- Entering first year DVM students are required to complete the rabies vaccination series within 45 days after the start of the semester.

- In accordance with ACIP and CDC, students may choose from one of the following options:
    - 2 doses of rabies vaccine, days 0 and 7, completed within 45 days of entering the program, with a one-time titer check between 1-3 years following vaccination; documentation of titer is required prior to start of the 3rd year of the program. The minimum acceptable titer is 0.5 IU/mL; if below that level, documentation of a booster is additionally required.
    - 2 doses of rabies vaccine, days 0 and 7, completed within 45 days of entering the program with a 1-dose booster between 3 weeks to 3 years following vaccination (no titer taken); documentation of third dose/booster is required prior to start of the 3rd year of program.
- Students who previously received a three-dose series of the vaccine only need to submit proper documentation; these students are not required to submit a titer.

- The approximate cost of each vaccination is $360 per dose plus an administration fee of $22 per dose. The approximate cost of a titer is $95. Rabies vaccination may be arranged through the CSU Health Network and apply the cost of vaccination to their CSU student account.
  Note: Students with CSU insurance (SHIP) should wait until coverage is active prior to receiving the vaccination series through CSU.

- The cost of vaccination will be included in financial aid packages, due to the vaccination being required rather than recommended.

- The CDC recommends that certain individuals not receive the rabies vaccine: https://www.cdc.gov/vaccines/vpd/should-not-vacc.html. DVM students wishing to be exempted from vaccination must submit a waiver request (page 5) that includes a statement of justification, along with supporting documentation. Exemptions may be allowed for religious or medical reasons only. Religious exemptions may be appropriate if the student is adherent to a religious belief that includes teachings opposed to immunizations. Medical exemptions may be appropriate if the student provides documentation establishing that the vaccination is medically contraindicated. Cost of vaccination will not be considered a compelling reason for an exemption. Requests for exemption will be considered in consultation with the Associate Dean for Veterinary Academic and Student Affairs, Directors of Infection Control, and representatives of the Diagnostic Laboratory and Veterinary Teaching Hospital.

- Failure to complete the vaccination series or secure approval for exemption within 45 days of entering the program will prevent the student from continuing in the program.

Uploading Documentation to the Health Portal

- Rabies vaccination records can now be uploaded through the CSU Health Network Portal which can be accessed here.
- Log in using your ename and password.
- The instructions for uploading documents are contained in the following link: https://health.colostate.edu/new-student-checklist/ under "How to submit immunization records". Instead of choosing 'Immunization Record" as the document type, choose "Rabies Record". You do not have to complete the "My Forms" information. If you receive the Rabies vaccination at the CSU Health Network, you do not need to upload the Rabies vaccination records.

The following information regarding rabies in the U.S. was obtained from the Center for Disease Control and Prevention website: http://www.cdc.gov/rabies/index.html

Rabies is a preventable viral disease of mammals most often transmitted through the bite of a rabid animal. The vast majority of rabies cases reported to the Centers for Disease Control and Prevention (CDC) each year occur in wild animals like raccoons, skunks, bats, and foxes.

The **rabies virus** infects the central nervous system, ultimately causing disease in the brain and death. The early symptoms of rabies in people are similar to that of many other illnesses, including fever, headache, and general weakness or discomfort. As the disease progresses, more specific symptoms appear and may include insomnia, anxiety, confusion, slight or partial paralysis, excitation, hallucinations, agitation, hypersalivation (increase in saliva), difficulty swallowing, and hydrophobia (fear of water). Death usually occurs within days of the onset of these symptoms.

Public Health Importance of Rabies

Over the last 100 years, rabies in the United States has changed dramatically. More than 90% of all animal cases reported annually to CDC now occur in wildlife; before 1960 the majority were in domestic animals. The principal rabies hosts today are wild carnivores and bats. The number of rabies-related human deaths in the United States has declined from more than 100 annually at the turn of the century to one or two per year in the1990's. Modern day prophylaxis has proven nearly 100% successful. In the United States, human fatalities associated with rabies occur in people who fail to seek medical assistance, usually because they were unaware of their exposure.

Cost of Rabies Prevention

Although human rabies deaths are rare, the estimated public health costs associated with disease detection, prevention, and control have risen, exceeding $300 million annually. These costs include the vaccination of companion animals, animal control programs, maintenance of rabies laboratories, and medical costs, such as those incurred for rabies postexposure prophylaxis (PEP).

Accurate estimates of these expenditures are not available. Although the number of PEPs given in the United States each year is unknown, it is estimated to be about 40,000. When rabies becomes epizootic or enzootic in a region, the number of PEPs in that area increases. Although the cost varies, a course of rabies immune globulin and five doses of vaccine given over a 4- week period typically exceeds $1,000. The cost per human life saved from rabies ranges from approximately $10,000 to $100 million, depending on the nature of the exposure and the probability of rabies in a region.

United States Rabies SurveillanceData, 2006

Each year, scientists from the Centers for Disease Control and Prevention (CDC) collect information about cases of animal and human rabies from the state health departments and publish the information in a summary report. The most recent report, entitled "Rabies surveillance in the United States during 2010," contains the epidemiologic information on rabies during 2010. [On the website] is a brief summary of the surveillance information for 2010, including maps showing the distribution of rabies in the United States.

In 2010, 48 states and Puerto Rico reported 6,153 cases of rabies in animals and 2 human cases to CDC (Hawaii is the only state that is rabies free). The total number of reported cases increased by approximately 8.0% from those reported in 2009 (6,690 rabid animals and 4 human cases).

Wild Animals

Wild animals accounted for 92% of reported cases of rabies in 2010. Raccoons continued to be the most frequently reported rabid wildlife species (36.5% of all animal cases during 2010), followed by skunks (23.5%), bats (23.2%), foxes (7.0%), and other wild animals, including rodents and lagomorphs (1.8%). Reported cases increased among all wild animals during 2010.

Outbreaks of rabies infections in terrestrial mammals like raccoons, skunks, foxes, and coyotes are found in broad geographic regions across the United States. Geographic boundaries of currently recognized reservoirs for rabies in terrestrial mammals are shown [on the website].

Domestic Animals

Domestic species accounted for 8% of all rabid animals reported in the United States in 2010. The number of reported rabid domestic animals decreased among all domestic species except cats. In 2010, cases of rabies in cats increased 1.0% compared with the number reported in 2009. The number of rabies cases reported in cats is routinely 3-4 times that of rabies reported in cattle or dogs. Pennsylvania reported the largest number of rabid domestic animals (72) for any state, followed by New York (51). In 2010 approximately 1.1% of cats and 0.3% of dogs tested for rabies were found positive.

Human Rabies

In this century, the number of human deaths in the United States attributed to rabies has declined from 100 or more each year to an average of 2 or 3 each year. Two programs have been responsible for this decline. First, animal control and vaccination programs begun in the 1940's and oral rabies vaccination programs in the 2000’s have eliminated domestic dogs as reservoirs of rabies in the United States. Second, effective human rabies vaccines and immunoglobulins have been developed.

DVM PROGRAM
RABIES PROPHYLAXIS WAIVER REQUEST

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You may request an exemption from the vaccination or titer for medical or religious reasons. To optimize student protection and enactment of appropriate precautions, section heads and selected course coordinators will be informed of unvaccinated students annually. If an exemption is granted, you agree as a condition of receiving and accepting the exemption, that section heads and selected course coordinators or clinicians may be informed of vaccination status. Also, if granted, student will be required to execute a legally binding document releasing CSU from any liability or claims arising from the granting of the waiver.

To request an exemption please submit a statement of justification and supporting documentation. Send these documents via email to the DVM Student Coordinator at cvmbs_dvm@colostate.edu.