Rabies Vaccination Protocols and Pitfalls

Zenny Ng
zng@utk.edu

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Rabies I: Prevention
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• Age and vaccination status
  • The minimum age an animal can be given a rabies vaccine is 12 weeks of age, with some counties stipulating 16 weeks.
  • ALL dogs and cats MUST be vaccinated by 6 months of age.
  • A dog or cat is not considered “currently vaccinated” until 28 days after the initial vaccine.

• Who can administer rabies vaccination and certificate
  • The state does not specify who is authorized to administer a rabies vaccine. The animal is considered vaccinated if a licensed veterinarian signs the official rabies certificate.
  • A veterinarian is not permitted to sign a rabies certificate that was not given under his or her jurisdiction (no re-writing of certificates done at another clinic).
  • For imported pets, veterinarians should request the ORIGINAL rabies vaccination certificates (and English translations). Veterinarians should strongly recommend that a dog be vaccinated against rabies if:
    • The client is unable to provide the original certificate
    • The certificate comes from an unknown source; or
    • The reported age does not match the physical appearance of the puppy

• Types of rabies vaccines
  • The State of Tennessee recognizes the approved length of all rabies vaccinations as it appears on the label or package insert (e.g., 1 year or 3 years).
  • There is not much difference between the one year and three year rabies vaccines; what differences do exist are proprietary but may only involve higher concentrations of adjuvant in some 3-year vaccines.

• Waivers for rabies vaccination
  • Tennessee has no legal provision that allows veterinarians to exempt, or waive, the rabies vaccination requirement for a domestic dog or cat.
  • A waiver of rabies vaccination (see the template of the AVMA’s Annual Rabies Vaccination Waiver form) should only be issued when a licensed veterinarian with a valid veterinarian-client-patient relationship with the animal and the appropriate public health authorities concur that the waiver should be issued. The client must be informed that, even if a waiver is issued, the waiver only serves to allow the animal to be properly licensed in compliance with animal control regulations.
  • Antibody titers are not accepted in lieu of rabies vaccination in Tennessee.
  • The Rabies Challenge Fund Charitable Trust will determine the duration of immunity conveyed by rabies vaccines. The goal is to extend the required interval for rabies boosters to 5 and then to 7 years. The Rabies Challenge Fund Charitable Trust is a federally registered 501(c)(3) charitable organization.
Rabies II: Exposure
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- Prevalence of rabies:
  - Across the US and Puerto Rico in 2012, 6162 animals were confirmed rabies positive. Wildlife (5643) made up 92% of the positive population (Raccoons accounted for the majority of all the cases (32%), followed next by bats, skunks, foxes, "other," and rodents and lagomorphs). Cats (257) made up 4.2% of the positive population. Dogs (84) made up 1.4% of the positive population.
  - Across Tennessee in 2012, 48 animals were confirmed rabies positive (1 cat, 2 dogs, 2 horses, 2 raccoons, 10 bats, 31 skunks).

- Exposure:
  - Classified as bite or non-bite exposure
  - Rabies is ONLY present in saliva and nervous tissues
  - Contact with blood, urine, or feces does not constitute an exposure
  - Management of an animal potentially exposed to a rabid animal

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Rabies Exposure Flow Chart

For animals exposed or suspected to have been exposed to a rabid animal

**Local or state public health authorities should be consulted immediately**

<table>
<thead>
<tr>
<th>目前国内 vaccinated</th>
<th>Overdue for vaccinations</th>
<th>UNVACCINATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revaccinate immediately. Observe for 45 days under owner's control. Any illness in animal during observation period should be reported immediately to the local health department.</td>
<td>Evaluate on a case-by-case basis in consultation with health authorities.</td>
<td>Dog, cat, or ferret: Euthanize immediately or, if owner unwilling, place in strict isolation for 6 months. Vaccinate upon entry or not later than 28 days before release. Livestock: Slaughter immediately or confine and observe, on case-by-case basis, for 6 months. If signs suggestive of rabies develop during isolation period, the animal should be euthanized and tested. Contact local health department for details.</td>
</tr>
</tbody>
</table>

Wild animals and hybrids (any offspring of wild animals crossbred to domestic animals)

If exposed to a rabid animal, should be euthanized immediately. If owner unwilling, consult health authorities. No injectable rabies vaccines are licensed for use in wild animals or hybrids; however, vaccination status may be considered by health authorities in determining disposition of animal.

Available at http://www.cdc.gov/animal-disease/zoonoses/rabies/Compendium.html

Updated March 5, 2012
• Management of an animal that bites a human

**Human that is bitten by an animal**

Wash wound thoroughly with soap and water. Seek medical attention for wound if necessary. THEN consider type and availability of biting animal, in consultation with local or state public health authorities.

**Healthy dog, cat, or ferret**

- Observe for 10 days. If animal remains clinically normal, there is no need for rabies testing or human post-exposure prophylaxis.*

**Rabies reservoir species (raccoon, skunk, fox, bat)**

- Contact local health department to arrange testing of animal for rabies. If animal is not available for testing, bitten person should receive post-exposure prophylaxis.*

**Other healthy domestic animal**

- Evaluate on a case-by-case basis in consultation with health authorities.

**Other wild animal (non-reservoir species)**

- Testing or post-exposure prophylaxis rarely indicated—evaluate on a case-by-case basis in consultation with health authorities.

*Any illness in the animal during the confinement period should be evaluated by a veterinarian and reported immediately to the local health department.


• Post-exposure prophylaxis

**Post-exposure prophylaxis for non-immunized individuals**

**Wound Cleansing:** Begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent such as povidone-iodine solution should be used to irrigate wounds.

**HRIG:** If possible, the full dose should be infiltrated around wounds. Any remaining volume should be administered IM at an anatomical site distant from the vaccine location.

**Vaccine:** Human diploid cell vaccine or purified chick embryo cell vaccine – 1.0 mL IM (deltoid), one on each days 0, 3, 7, and 14.*

**Post-exposure prophylaxis for previously immunized individuals**

**Wound Cleansing:** Begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent such as povidone-iodine solution should be used to irrigate wounds.

**HRIG:** HRIG should NOT be administered

**Vaccine:** Human diploid cell vaccine or purified chick embryo cell vaccine – 1.0 mL IM (deltoid), one on each days 0 and 3.

• Testing
The Tennessee Department of Health Division of Laboratory services offers rabies testing services free of charge using the direct fluorescent antibody (DFA) test at any of the 3 labs:

- **TDH Laboratory Services- Nashville**
  
  ATTN: Rabies Lab  
  630 Hart Lane, Nashville, TN 37243  
  Phone: (615) 262-6300  
  Fax: (615) 262-6393

- **Knoxville Regional Laboratory**
  
  ATTN: Rabies Lab  
  2101 Medical Center Way, Knoxville, TN 37920  
  Phone: (865) 549-5201  
  Fax: (865) 549-5199

- **Jackson Regional Laboratory**
  
  ATTN: Rabies Lab  
  295 Summar Drive, Jackson, TN 38301  
  Phone: (731) 426-0686  
  Fax: (731) 421-5199

**Contacts**

Tennessee Dept of Health  
425 5th Ave North  
Cordell Hull Bldg, 3rd Floor  
Nashville, TN 37243  
Phone: 615-741-3111  
Email: tn.health@tn.gov

Dr. Charles Hatcher  
State Veterinarian for Tennessee  
Dept of Agriculture  
440 Hogan Rd  
Nashville, TN 37220  
Phone: 615-837-5103  
Email: tn.agriculture@tn.gov

**References**

