

DSHS Grand Rounds – April 11, 2018  
*Things You May Not Know About Rabies, but Should!*  
**Questions and Answers**

Very insightful questions. We appreciate your interest in rabies and for obviously paying very good attention to our presentation!

1. What is the potential for migrating birds becoming carriers of rabies?  
Interesting thinking-out-of-the-box question. You are correct in your realization that birds are, like mammals, warm-blooded animals.

Although rabies typically affects mammals, there have been rare reports of rabies in birds, including one in India in 2015 involving a domestic fowl that was attacked by a dog in an area endemic for canine rabies. Birds, like smaller mammals, usually would not survive being injured by a rabid animal. Additionally, the transmission potential of birds comes into question, although butchering and handling of rabies-infected poultry could be a possible exposure risk. Since this is a rarity, caution should be taken to not be overly concerned about rabies in birds.

2. Can the milk or meat of infected animals carry the rabies virus?  
Transmission of rabies virus from consuming unpasteurized milk from an animal infected with rabies virus is theoretically possible, but it is highly unlikely and no human cases have ever been reported via this route of exposure. Additionally, heat pasteurization destroys the virus so pasteurized milk from a rabid animal would pose no risk.

Ingestion of raw meat could pose an exposure due to exposure to infected neural tissue. However, just like pasteurized milk, cooked meat poses no risk.

3. Will pepper spray deter a rabid animal?  
It would be hard to guess exactly how a rabid animal would respond to pepper spray, especially since they can be hypersensitive to sound, touch, etc. I don't think I would risk accelerating the animal's agitation by using the spray, but if you're in a difficult predicament, sometimes you try whatever you have on hand.
4. What countries have the highest rates of human rabies?  
Africa and Asia.

5. Is the post-exposure vaccine based on weight?

The vaccine is not, but the human rabies immune globulin is (it is only given once at the start of the PEP). Administer 20 IU/kg body weight or 0.06 ml/lb of body weight.

You can refer to pages 11-13 of the *Rabies Prevention in Texas* document at <http://dshs.texas.gov/idcu/disease/rabies/information/>

6. You mentioned in your presentation that the continent of Antarctica doesn't have rabies, how about Australia?

You know your rabies! Australia used to always be included in this statement and some experts still state that Australia is rabies-free.

Rabies is a lyssa virus. The Australian bat lyssa virus is diagnosed with standard rabies diagnostic reagents, prevented with traditional rabies vaccines, and has resulted in fatal human disease that is indistinguishable from classic rabies. So we went with CDC's view that rabies exists on every continent except Antarctica.

7. Are there guidelines available for medical staff on how to infiltrate wounds with HRIG?

Yes.

"Administer 20 IU/kg body weight. If anatomically feasible, the full dose should be infiltrated around and into the wound(s), and any remaining volume should be administered at an anatomical site (intramuscular [IM]) distant from vaccine administration. Also, HRIG should not be administered in the same syringe as vaccine. Because HRIG might partially suppress active production of rabies virus antibody, no more than the recommended dose should be administered."

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8. Where is the best place to get pre-exposure vaccinations?

You will need to get a prescription from your doctor for preexposure rabies vaccinations.