

### DOC'S DESK

The first hantavirus pulmonary syndrome (HPS) case in the state for 2015 occurred in June in a Panhandle county. The total for HPS cases statewide is now 45, with 15 of those being fatal. Last year, there were five cases in the state, all of which survived. Four of them were in HSR 1. This year's patient survived so our case fatality rate (CFR) has decreased to 33% in the state and 35% in HSR 1.

Certain species of mice, native to the Region, may carry hantaviruses. These animals shed the virus in their urine, droppings and saliva and contaminate their environment. Exposure to humans may occur when nesting materials or dust contaminated with excretions from infected mice are stirred up, allowing the virus to be breathed in by humans. The illness is rare, but HPS cases are frequently associated with spring cleaning and activities associated with agriculture, such as moving feed sacks, cleaning dust off saddles, repairing equipment in which rodents have nested, etc.

The following practices are recommended to reduce risk of exposure to a hantavirus:

- Prevent entry of rodents to residences, feed rooms, and work areas by sealing openings.
- Keep brush, trash, wood-piles, and other items that may attract or house rodents. Away from residences.

- Keep food sources such as garbage and pet or livestock feed in sealed containers.
- Ventilate contaminated areas at least 30 minutes before beginning the cleaning process.
- Goggles and a HEPA or N-95 mask are recommended if any dust will be stirred up.
- Protective gloves should be worn when handling dead rodents and when cleaning up nesting areas, urine or droppings.
- Do not stir up dust by sweeping or vacuuming dry areas. First, use either a 1-to-10 bleach-water mixture or another effective disinfectant to dampen areas before cleanup. This will eliminate dust and begin inactivating the virus. After 30 minutes, the same mixture or disinfectant should be reapplied and cleanup immediately following.
- The same bleach mixture or disinfectant should be applied to dead rodents, nests, urine and droppings before cleaning, with the same 30 minute interval and reapplication process.

Early symptoms of hantavirus infection are generally "influenza-like" (IL) with fatigue, fever and muscle aches. Headaches, dizziness, chills, nausea, vomiting, diarrhea and abdominal pain may also occur. These may progress to coughing and shortness of breath. If these symptoms occur after exposure to rodent droppings, nests or dust from rodent contaminated areas, people should contact their health care provider

immediately to inform the practitioner of the exposure and seek appropriate care.

While our HPS case total is a quarter of last year's, at mid-year for 2015, HSR 1 has recorded a 400% increase in rabies cases over 2014. More rabies cases have been recorded than have been confirmed since 2011. Currently, 12 cases have been laboratory confirmed. What is interesting is that all but one has come from Ochiltree County, and all but two of those from within Perryton. The most recent case was reported on June 18. The "outlier" was from Wheeler County in April. All rabid animals thus far have been skunks. In 2005 Ochiltree was our "hot spot" for rabies with 15 reported cases. The practice this year is the same as was used in 2005, whereby not all suspicious animals are being submitted. Animals are submitted if exposure of an animal or human has occurred, or possibly an animal that turns up acting strange in an area not previously affected.

At this point, no West Nile virus (WNV) cases in humans or horses have been reported. Horses, mules, donkey's etc. should be vaccinated as per a veterinarian's direction because the virus is still endemic here. Western Equine Encephalitis virus (WEE) has not been diagnosed in awhile, but the virus is probably still extant. A multivalent vaccine for horses is generally advisable, usually including Eastern Equine Encephalitis (EEE), especially if any travel to the eastern part of Texas or beyond is planned for the animals. It is especially important to vaccinate young animals that have

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never been vaccinated or naturally exposed to these diseases.

Since we have been blessed with nice amounts of rain this year, the mosquitoes are buzzing and may well be carrying WNV, St. Louis encephalitis (SLE), or perhaps even WEE. Please practice the 4-Ds for human protection: 1. **D**rain standing water; 2. **D**efend yourself by using an effective repellent, screens on windows, air conditioning, etc.; 3. Avoid being out at **D**usk or **D**awn; and 4. If mosquitoes are active, **D**ress in long sleeves and long pants. Thus far, our Region has not had any imported cases of Chikungunya (CHIKV) though there has been one imported Dengue (DENV) virus infection. These diseases tend to hitch a ride with travelers returning home from the Caribbean, Mexico or South America. There have been nine CHIKV and four DENV cases this year in other parts of the state in returning travelers, but no local spread has been documented thus far. More information about arboviral diseases may be accessed at: <http://www.dshs.state.tx.us/idcu/disease/arboviral/>. Another disease not commonly seen in the region is Chagas, and we've had one, imported from Mexico, this year.

The US was invaded this year by two exotic avian influenzas, H5N1 and H5N2. The H5N1 strain is genetically different from the variant that has devastated poultry and infected humans in the Eastern Hemisphere for over a decade. In our country it has been found only in wild birds, so far. However, a deadly strain of H5N2 is having a significantly adverse impact on the U.S. poultry industry, predominantly along the Mississippi Flyway. Overseas, the "other" H5N1 avian influenza has resurged in Egypt, other African countries, and a few other countries in Southeast Asia and the Middle East.

The MERS coronavirus originating in the Middle East (Saudi Arabia still has the majority of cases) also remains active. It was carried by a traveler to South Korea where it spread to over 180 other people. It also has been carried into the Philippines twice but has not spread further, yet. The good news is that the only two known incursions into the U.S. were contained, as was the Ebola virus. May we complete the year without another exotic disease incursion.

## Defend Yourself Against West Nile virus

**Remember the "Four D's" for your defense against exposure to mosquitoes:**

- **DUSK/DAWN** are the times of day you should try to stay indoors. This is when infected mosquitoes are most active.
- **DRESS** in long sleeves and pants when you're outside. For extra protection, you may want to spray thin clothing with repellent.
- **DEFEND** yourself by using an effective repellent, screens on windows, air conditioning, etc.
- **DRAIN** standing water in your yard and neighborhood-old tires, flowerpots, and clogged rain gutters. These are mosquito breeding sites.

Fewer than 1 percent of those bitten by infected mosquitoes become severely ill. If you have symptoms that include stiff neck, high fever, or severe headache, contact your health-care provider immediately.

**Rabies Review for Local Rabies Control Authorities,  
Animal Control Officers, Law Enforcement**

**City of Lubbock Vector Control Building**

**102 Municipal Drive**

**Lubbock, Texas**

**Tuesday, August 4, 2015**

**9:00 am – 4:00 pm**

We hope you will find this review helpful in the event that you have to investigate an animal bite or handle a rabid animal. Your knowledge of the law and the proper procedures may help save a life. Six hours of DSHS continuing education credit are approved for this class for ACOs. Approval is being sought for veterinarians and registered veterinary technicians for six hours from the High Plains and South Plains Veterinary Medical Associations. Peace officers can receive TCOLE credit but must submit their own forms.

If you have questions about the review sessions, you may contact Karen McDonald at 806/783-6422, or Dr. James Alexander and Tonya Finch at 806/655-7151. Both sessions are free and walk-ins are welcome. We would, however, like to have an estimate of attendance in order to prepare handouts for the sessions. If you plan to attend, please fill out and return the bottom portion of this form to:

Texas Department of State Health Services

Zoonosis Control Program HSR 1

WTAMU Box 60968

300 Victory Drive

Canyon TX 79016

Or fax the form to (806) 655-6448

The following individual(s) plan to attend the Rabies Review in (please circle one):

Lubbock, TX on August 4, 2015

Please print the name, agency +/-or city, and telephone number of the attendant(s) below.

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**Free Emergency Management Workshop  
For**

**Animal Care and Emergency Management Professionals**

**US Agricultural Research Services  
3810 4<sup>th</sup> Street  
Lubbock, Texas  
Tuesday, August 11, 2015  
8:15 am – 4:30 pm**

**Amarillo Civic Center  
401 S. Buchanan Street  
Amarillo, Texas  
Wednesday, August 12, 2015  
8:15 am – 4:30 pm**

The meeting will be held at two locations for your convenience. We hope you will find this workshop helpful if you are faced with animals in an emergency situation. Your knowledge of the services available may help save a life. Six hours of DSHS continuing education credit are approved for this class for ACOs. Approval is being sought for veterinarians and licensed veterinary technicians for six hours from the Texas Board of Veterinary Medical Examiners. Peace officers can receive TCOLE credit but must submit their own forms.

If you have questions about the workshops, you may contact Karen McDonald at 806/783-6422, or Dr. James Alexander and Tonya Finch at 806/477-1104. Both sessions are free and walk-ins are welcome. We would, however, like to have an estimate of attendance in order to prepare handouts for the sessions. If you plan to attend, please fill out and return the bottom portion of this form to

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Zoonosis Control Program HSR 1  
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Amarillo, TX on August 12, 2015

Please print the name, agency +/-or city, and telephone number of the attendant(s) below.

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## Hantavirus Pulmonary Syndrome

Hantavirus pulmonary syndrome (HPS) is an infectious disease that can cause death. It is spread to people by certain species of mice.

Hantavirus pulmonary syndrome was first detected in the United States in 1993. At that time, cases were occurring in the Four Corners area of the Southwest (the point where Colorado, Arizona, Utah, and New Mexico meet). The first case of HPS in Texas was also reported in 1993.

Early symptoms of HPS are much like symptoms of the flu. They usually appear 1 to 3 weeks (sometimes as many as 6 weeks) after exposure and include: fever, chills, body aches, headache, vomiting, stomach pain, dry cough, and rapid onset of severe respiratory (breathing) failure.

Some rodents can carry hantavirus and are never sick. They may have the virus in their droppings (feces), urine, and saliva. From here, the virus can spread in the air on dust particles. You can then inhale them. You can also be infected if you touch your nose or mouth after handling items (for example, tools or clothing) that have the virus on them.

Things you do may increase your possibility of contact with the virus. These include cleaning barns, cabins, or sheds and having outdoor hobbies, such as camping, hiking, or hunting.

Always see a physician if you have sudden and severe shortness of breath. Also call a physician if you have flu-like symptoms after contact with rodents or their wastes. Be sure to tell the physician about the type of contact you had. (Texas does not have frequent cases of HPS. DSHS Region I has had 23 confirmed cases from 1993 through 2015.)

Patients with HPS can receive relief through supportive treatment. Antibiotics will not cure a hantavirus infection.

For more information on this disease and how to prevent it, as well as rodent control and disposal, please go to [www.dshs.state.tx.us/iduc/disease/hantaviruses/information/](http://www.dshs.state.tx.us/iduc/disease/hantaviruses/information/) or [www.cdc.gov/hantavirus](http://www.cdc.gov/hantavirus).



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Dallam	Sherman	Hansford	Ochiltree	Lipscomb	
Hartley	Moore	Hutchinson	Roberts	Hemphill	
Oldham	Patterson	Carson	Gray	Wheeler	
Deaf Smith	Randall	Armstrong	Danley	Collingsworth	
Parmer	Castro	Swisher	Briscoe	Hall	Childress
Bailey	Lamb	Hale	Floyd	Motley	
Cochran	Haskell	Lubbock	Crosby	Dickens	King
Vanhook	Terry	Lynn	Garza		

## Online CEs Available

Online training is a great way to earn continuing education credit without the inconvenience of time spent away from the office nor the expense of travel on a tight budget. They can also be taken at a time that is most convenient for the registrant's schedule and usually allow several days to weeks to complete the material.

Currently on the non-DSHS sponsored courses page on the Zoonosis Control Branch website, ([www.txaco.org](http://www.txaco.org)) besides the online review level Euthanasia Training class by Dr. Grant, (Animal Care Training) the American Society for the Prevention of Cruelty to Animals (ASPCA) lists several online courses covering topics in the areas of combating dog-fighting, emergency shelter medicine, field investigational response, fundamentals of emergency sheltering and investigating animal abuse for law enforcement. For all of the classes listed, there are contact names and phone numbers to call to answer any questions you may have about them and to assist you with the registration process. To get a glimpse of what the material covers, go to the ASPCA training site at [www.aspcapro.org/fir](http://www.aspcapro.org/fir).

The Texas A&M AgriLife Extension Service has also developed a curriculum designed for school Integrated Pest Management (IPM) coordinators, pest management professionals and animal control/code enforcement officers. Though the classes have not been posted on the DSHS training site, of the numerous classes they've developed, five have been approved for animal control CEs by DSHS: Ants 101, Bats 101, Mosquitoes 101, Pollinators 101 and Stinging Insects 101. Information on these classes, including the number of hours and fees, can be found at <https://txn.esslearning.com/catalogs/agrilife/>. Scroll down until you find the IPM section.

Remember, according to Chapter 829 of the Texas Health and Safety Code, of the 30 CE hours required to maintain the basic training certificate, only 10 hours maximum for each three-year period can be obtained through online courses.

## DSHS FREE PUBLICATIONS

Those who have access to the internet can order DSHS publications online. The Zoonosis Control Branch has pamphlets on a variety of topics, such as mosquito control, rabies, animal bites, plague, encephalitis, Rocky Mountain spotted fever, and tick borne diseases. You can search for publications by title, subject, keyword, language, format or publications number, and pamphlets will be shipped to you at no cost. To order pamphlets online, visit the website: <http://hhsc.pinnaclecart.com/dshs/>.

If you have any questions, please call Tonya at (806) 655-7151 ext. 1104.

## Navigating to the Zoonosis Branch website

Have a hard time remembering [www.dshs.state.tx.us/idcu/health/zoonosis/](http://www.dshs.state.tx.us/idcu/health/zoonosis/) every time you search for information on the Zoonosis website? Well, we do too. Domain names for various areas on our site have been around for a long time and are often provided when directing individuals to specific pages. They're quick, easy-to-remember links that get you to where you want to be faster. Dr. Laura Robinson in the Austin office was kind enough to remind us of five that we use frequently. They are not case-sensitive, but some parts are capitalized to make them easier to remember:

Zoonosis Control home page: [www.TexasZoonosis.org](http://www.TexasZoonosis.org)

ZC rabies home page: [www.TexasRabies.org](http://www.TexasRabies.org)

ZC oral rabies vaccination program home page: [www.TexasORVP.org](http://www.TexasORVP.org)

ZC animal control home page: [www.TexasACO.org](http://www.TexasACO.org)

ZC West Nile virus home page: [www.TxWestNile.org](http://www.TxWestNile.org)