April 2023

Region 8 Zoonosis Control Newsletter

Public Health Region 8 | Zoonosis Control
Texas Department of State Health Services
dshs.texas.gov/region8/zoonosis | Region8.Zoonosis@dshs.texas.gov

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Region 8 Zoonosis Team
Tower of the Americas, San Antonio
From Left: Rachel Panneton, Amanda Kieffer, Jon Stewart

Springing Forward

By: Amanda Kieffer

Happy Spring, readers! This quarter's newsletter is hopping with information and updates, including our quarterly rabies summary and a new quarterly report on other zoonotic conditions in Region 8. We also have disease highlights on malaria and canine brucellosis, as well as information on a recent health advisory regarding xylazine and controlled drugs. Be sure to check out the announcements page for some exciting CE updates, including our ACO Basic Course in April. Sending warm wishes for a fresh start and lots of sunlight this Spring!

Zoonosis News

Diseases in Nature Conference Coming to San Antonio!

The 72nd Annual James Steele Conference on Diseases in Nature Transmissible to Humans (DIN) will be held May 31 - June 2, 2023 at the La Quinta Inn & Suites by Wyndham, San Antonio Riverwalk Hotel. There will be 16.5 CEU hours offered for DVMs, LVTs, and ACOs. Visit our CE Opportunities section on the last page for information on registration. We will see you there!

Deadline Approaching for Rabies Poster Contest

The annual DSHS Rabies Awareness and Prevention Poster contest is currently open for submissions! The contest helps educate students on rabies risks and prevention. Students in grades K-12 can participate and prizes are sponsored by the Zach Jones Memorial Fund. **Deadline for submissions is April 7, 2023.**

***For more information, visit**: https://www.dshs.texas.gov/rabies/rabies-information/rabies-awareness-prevention-poster*

Rabies Update

By: Jon Stewart

Annual Rabies Update: January – March 2023

Between January and March of 2023, skunks accounted for most of the positive rabies cases but there has also been one positive bat and one bovine.

2023 Rabies Cases in Animals, Region 8
January 1, 2023 – March 31, 2023

	Bat	Cat	Dog	Skunk	Raccoon	Fox	Other	*All*
Atascosa				1				**1**
Gonzales				1			1[A]	**2**
Lavaca				1				**1**
Victoria	1			1				**2**
Totals	**1**	**0**	**0**	**4**	**0**	**0**	**1**	**6**

[A] – Bovine

Human Notifiable Zoonoses

By: Jon Stewart

Reportable Zoonotic Disease Cases in Humans, Region 8*
January 1, 2023 – March 31, 2023

Condition	Confirmed	Probable	Suspect	*Total*
Malaria+	3			**3**
Typhus, flea-borne *(endemic, murine)*		10		**10**
Totals	**3**	**10**	**0**	**13**

* *DSHS case counts may differ from those reported by local jurisdictions as DSHS does not report cases until epidemiological investigations are complete.*

\+ *Case counts from these conditions include travel-related associated infections acquired outside of Texas or outside of the United States by residents of PHR8.*

Canine Brucellosis

By: Amanda Kieffer

Canine brucellosis is an important cause of reproductive failure in dogs. It is caused by a bacteria known as *Brucella canis*. Although human infections are rare, *Brucella canis* is considered a zoonotic pathogen. Canine brucellosis is not currently a reportable condition in Texas, however veterinary and animal care professionals should understand how to recognize and prevent this disease.

Transmission

Brucella canis is primarily shed in the birthing fluids (e.g. placenta, fetus, vaginal discharges) of female dogs and the semen of male dogs. *Brucella canis* has also been found in saliva, nasal secretions, feces, milk and urine of infected animals. Most animals become infected through reproduction or ingestion of birth products or through contact of mucous membranes with infected secretions. Offspring of infected dogs can be infected in utero, during birth, or through nursing (milk). Humans can also be infected by exposure to secretions containing the bacteria. This is an important source of occupational risk to veterinarians, animal care technicians, dog breeders, and others who have exposure to infected dogs.

Clinical Signs in Dogs	Clinical Signs in Humans

• Reproductive problems
  ○ Abortions, stillbirths, infertility
  ○ Prostatitis in males
• Diskospondylitis (infection of the spine and discs)
• Swollen lymph nodes
• Lethargy
• Weight loss
	• Fever or Headaches
	• Flu-like symptoms (fatigue, chills, sweats, aches)
	• Swollen lymph nodes
	• Septic arthritis (infection of joints)
	• Infection of heart valves (in severe cases)

Prevention & Treatment

The risk of canine brucellosis is higher in dog breeding or other kennel operations where there is reproduction between infected animals. To prevent canine brucellosis in a breeding operation, animals should be screened prior to reproduction to prevent disease transmission. Positive animals and those not intended for breeding should be neutered to prevent infection. Birthing fluids should be removed promptly and premises disinfected to prevent exposure. Euthanasia of infected animals may be recommended.

When canine brucellosis is diagnosed in an animal from a private household or other environment or non-breeding animals, pet owners should be advised of hygiene measures to prevent contact with urine, feces, and other secretions. The affected animal may require euthanasia or should be neutered, treated with antibiotics, and re-tested to confirm clearance of infection.

How Can you Protect Yourself

- Wear personal protective equipment (PPE) such as gloves and masks when handling birthing animals and/or assisting with delivery of newborn animals
- Always wash your hands after touching animals
- Follow good hygiene and sanitation practices to prevent transmission

For more information:

https://www.cfsph.iastate.edu/FastFacts/pdfs/canine_brucellosis_F.pdf
http://www.nasphv.org/Documents/BrucellaCanisInHumans.pdf

Malaria

By: Jon Stewart

Malaria is a serious and sometimes fatal disease caused by a parasite that commonly infects a certain type of mosquito which feeds on humans. People who get malaria are typically very sick with high fevers, shaking chills, and flu-like illness. Four kinds of malaria parasites infect humans: *Plasmodium falciparum, P. vivax, P. ovale*, and *P. malariae.*

While not endemic in the United States, there are about 2,000 cases of malaria are diagnosed in the annually - with the vast majority of cases coming from travelers and immigrants returning from parts of the world where malaria transmission occurs.

Transmission

People get malaria most commonly by being bitten by an infective female *Anopheles* mosquito. When a mosquito bites an infected person, a small amount of blood is taken in which contains microscopic malaria parasites. When the mosquito takes its next blood meal, these parasites mix with the mosquito's saliva and are injected into the person being bitten.

Signs and Symptoms

Symptoms of malaria include fever and flu-like illness, including shaking chills, headache, muscle aches, and tiredness. Nausea, vomiting, and diarrhea may also occur. Malaria may cause anemia and jaundice (yellow coloring of the skin and eyes) because of the loss of red blood cells.

Prevention

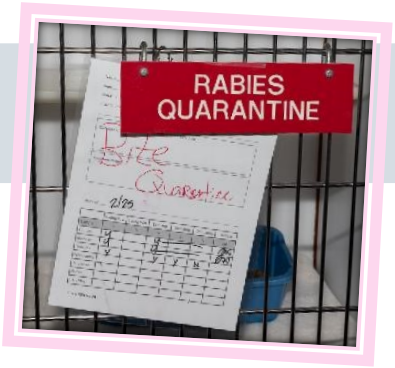
If you are planning travel to region where malaria transmission occurs, you should check your destination to see if prescription malaria medication is recommended.

When living or traveling in malaria-risk areas:

- Apply insect repellent that contains DEET (N, N-diethyl-m-toluamide). Be sure to read label instructions. Spray clothing as well as exposed skin with repellent.
- Sleep under mosquito netting (bed nets).
- Dress in long sleeves and long pants when you are outside.
- Treat clothes and bed nets with permethrin, available as a spray or liquid.
- Treat living areas, particularly if staying in quarters that are not air-conditioned or do not have window screens, with pyrethroid-containing flying-insect spray.

For more information:

https://www.dshs.texas.gov/malaria/malaria-faqs



Rabies Pet: Quarantine vs Confinement

By: Rachel Panneton

What happens if your **pet** *(a dog, cat, or domestic ferret)* bites a human or was bitten by another animal? Does your **pet** go into **quarantine** or **confinement** and what is the difference?

For Pets	**Quarantine**	**Confinement**
What happened	Human was **bitten by pet**	**Pet was exposed** to rabid animal
Where does the pet typically go	-Quarantine facility *(licensed by DSHS)* -Veterinary clinic *(operated by veterinarian)* -At home* (***Not the owner's decision***)	-At home -Another appropriate location *(If owners cannot properly confine them)*
How long is it for	10 days *Vaccine status does not matter*	45 days [A] 90 days [B]
When to receive booster	After the 10 days are completed	As soon as possible [A] Booster at 0, 3, 8 weeks [B]
What if the pet gets sick or dies during that time	Euthanasia and test for rabies	Euthanasia and test for rabies
Number of observations	Twice daily by qualified person	Daily by custodian & at least on the first and last days by LRCA or vet
Are there other options	Euthanasia and test for rabies	Euthanasia
Who is in charge/makes the decisions	The LRCA (Local Rabies Control Authority)	
Other	**Quarantine Mandatory** • Owners shall submit their pet for quarantine. • Failure to cooperate can result in a Class C misdemeanor (daily). • Local ordinances may allow for seizure of the pet.	**Recommendations** • Avoid pet's saliva • Wear protective clothing and gloves when handling if needed • Confine pet away from other pets and people • Do not allow pet to go out in public.

** - this is the LRCA's decision and **not** the owners;* [A] *- Currently vaccinated;* [B] *- Not currently vaccinated*

For other animals that bite humans:

	High-Risk Animal	**Low-Risk Animal**	**Other Biting Animals**
The Animals	Free-roaming[+] skunks, bats, foxes, coyotes, & raccoons	Opossums, shrews, moles, squirrels, gophers, mice, rabbits, rats, & armadillos	All other biting animals not defined as a pet, high-risk animal, or a low-risk animal
If a Human is bitten	**MUST** be euthanized and tested for rabies	Does not need to be quarantined or tested *Unless there is a reason to suspect that the biting animal has rabies*	Euthanized and tested for rabies **or** Quarantined or suitably confined for a 30-day observation period

[+] *- free-roaming: not in captivity or has been in captivity for less than 200 days immediately before the bite incident occurs*

For more information:

Texas Health and Safety Code, CHAPTER 826. RABIES – Legislative law

TAC 169 Subchapter A: Rabies Control and Eradication – Rules (administrative law, written by the state health department)

***PDFs**: Animal Bites & Rabies Prevention in Texas*

Health Advisory: Xylazine

From: Texas Department of State Health Services (DSHS)

Please see the recently issued press release on the dangers of xylazine and controlled drugs from DSHS.

State Health Officials Warn of Dangerous Drug Combination

DSHS has issued a health advisory notifying health care providers of reports that the animal tranquilizer xylazine has been found mixed with illegal drugs distributed in Texas. Law enforcement has identified xylazine in the illegal fentanyl supply in West Texas, and it has been combined with other opioids, benzodiazepines like Xanax, & recreational drugs, leading to at least four reported xylazine-related deaths.

Xylazine produces a strong sedative effect and can prolong the high of opioids and other drugs. It can cause unconsciousness, low blood pressure, a slowed heart rate and breathing, and may cause organ damage due to a loss of blood flow. Chronic use can cause necrotic skin ulcers, severe sores that can kill skin tissue and lead to infection. Law enforcement reports drug combinations with xylazine may be sold on the street under names like "Tranq," "sleep cut," or "Philly drug" or may be sold without the end user's knowledge.

Because xylazine is not an opioid, its effects cannot be reversed with the use of naloxone (Narcan). However, because of the prevalence of fentanyl and other opioids, DSHS recommends clinicians continue to treat suspected drug overdoses with naloxone. If the patient does not respond, they should consider xylazine exposure and provide supportive care. Health care providers should also consider chronic xylazine exposure as a possible diagnosis for patients with severe and unexplained necrotic skin ulcers.

For the complete advisory: ***Health Advisory: Xylazine in Illicit Drugs Increases Overdose Risks***

Drugs Used in Animal Shelters

This news release serves as an important reminder that there are specific laws and regulations governing who has the right to possess and dispense various drugs in an animal shelter setting. These drugs should be stored securely to prevent diversion and access to these drugs should be limited to supervisors, veterinarians, and properly trained euthanasia technicians.

Dangerous Drugs: Drugs that are unsafe for self-medication and are not controlled drugs (drugs in Scheduled or Penalty Groups). These drugs may only be prescribed by a licensed veterinarian:

- Xylazine – used for tranquilization or sedation prior to euthanasia
- Isoflurane (or other inhalants) – used for anesthesia during surgery
- Acepromazine – used for tranquilization or sedation prior to euthanasia

Controlled Drugs: Drugs that have a high potential for abuse with severe psychological or physical dependence liability. Controlled substances typically consist of certain narcotic, stimulant, and depressant drugs. According to Section 481.111 of the Health and Safety Code, **denatured sodium pentobarbital** is the only controlled substance that animal control facilities can order directly. Your facility must have DSHS-issued facility number to register for a DEA (Drug Enforcement Agency) license, which is required in order to order and administer this drug.

For more information:

ACO Manual: Controlled Substances (Basic)
TH&SC, Chapter 481, Texas Controlled Substances Act & Chapter. 483, Dangerous Drugs
Title 21 – Code of Federal Regulations, Security Requirements: PART 1301 — Registration of Manufacturers, Distributors, and Dispensers of Controlled Substances
DSHS Drugs and Medical Devices: Drug Manufacturers & Distributors | Texas DSHS

Announcements & CE Opportunities

ACO Basic Course

DSHS Region 8 will host an in-person ACO Basic Course on **April 25th - 27th, 2023 in Uvalde, TX**. The course instruction will be on the 1st and 2nd days with the test on the 3rd day.

To register, contact Rachel Panneton at:
rachel.panneton@dshs.texas.gov / 210-774-1653

Note: DSHS has **discontinued** offering the ACO Basic Test Only Sessions as of 1-1-2023.

Diseases in Nature Conference (DIN)

DIN is a conference highlighting epidemiological investigations, clinical case studies, basic and applied research, and other topics in emerging and current zoonotic and environmentally-acquired infectious diseases. The conference's goal is to increase knowledge and awareness of these diseases within the veterinary, medical, public health, and academic research communities

Location: La Quinta Inn & Suites by Wyndham San Antonio Riverwalk Hotel (303 Blum, San Antonio, Texas, 78205)
Date: May 31st – June 2nd, 2023
For more information: *https://www.diseasesinnature.com/*

Future CE Course Topics

If you have any suggestions or requests for future CE Course topics, please let us know by emailing us at: Region8.Zoonosis@dshs.texas.gov

For More ACO CE Course Information:
https://www.dshs.texas.gov/idcu/health/zoonosis/education/training/aco/

ACO Manual Online

The ACO Training Manual is available for **free** on the DSHS website.

Note*: Updates to the manual are posted and represented by dates in parenthesis beside each chapter.*

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