

LAB NEWS



Arkansas Livestock and Poultry Veterinary Diagnostic Lab Newsletter

Winter 2016

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MESSAGE FROM THE DIRECTOR

A Few Thoughts about Client Feedback

Have you ever wondered what happens when you call the lab with a complaint? In past years, the lab relied on paper records to track client complaints and, despite our best intentions, these records were prone to delay. Since January of 2015, we have been recording client complaints as electronic workflows, which means that they are easily tracked and analyzed for underlying issues. If and when trends emerge in these issues, then our internal processes can be revised to prevent recurrences.

Since the transition to electronic tracking, we have had 43 instances of client complaint workflows. These instances can be initiated by anyone in the lab, and the data indicates that buy-in is proceeding nicely. Thirty-three (33) workflows are closed. We presently have 10 client feedback workflows that are classified as 'active'. This simply means that lab personnel, who have numerous other duties, are investigating your feedback to determine what sort of response is required. These responses can range from a simple correction to a full-blown root cause analysis.

Our goal in all this is pretty simple: increased responsiveness to your concerns and complaints. When we do a better job of responding, we also reduce the likelihood of mistakes. Here's where you can help. When your expectations are not met, let us know by calling and requesting to initiate a client complaint. Our first order of business will be to address your immediate needs, and then we can take down the particulars of your situation. By working the issue from both ends, we significantly decrease the odds that a particular issue will reoccur.

Linda F. Meola, Lab Director

Russ Summers, Deputy Lab Director

Meet Our Staff

Skylar Daniels is originally from Philadelphia, PA and misses Philly soft pretzels and water ice regularly. She graduated from the University of Central Arkansas in 2014 with a BS in Biology and a minor in Psychology. After graduation she took additional Health Science courses before joining the AVDL in June of 2015. She is a Microbiologist in the serology department where she performs surveillance testing for Avian Influenza and Mycoplasma by detecting antibodies in blood serum via ELISA technology. She also does a rotation in the virology department where she uses PCR testing to detect pathogens. Skylar has a three year old Blue Heeler mix named Layla and two cats named Nala and Dave. She enjoys spending her free time reading, playing Xbox, and is looking forward to taking a honeymoon with her husband in 2017.

Kevin Simmons joined the AVDL in June of 2008 after graduating from the University of Central Arkansas with a degree in Health Science. He began work in the serology department as a Microbiologist and quickly learned just how big the poultry industry is in Arkansas by the large volume of samples received—up to 2,000 or more samples a day. In September of 2015 he received a promotion to Serology Supervisor where he has assumed additional responsibilities within the section. His workload has increased considerably, but he continues to remember that the clients' needs are priority number one. Kevin enjoys maintaining an active lifestyle through hunting, fishing, camping, and playing men's tournament softball on weekends during the spring, summer, and fall. He also enjoys cheering on the Hogs during football season.

Please join us in congratulating Dr. Virginia Charney on the newest addition to her family, Wrex Parker Charney born on January 3rd, 2016. Wrex is a welcome addition to the Charney family!

Dr. Charney will be on maternity leave until April 4th, 2016 to spend time with her family and newborn. Please contact Dr. Linda Meola at lmeola@alpc.ar.gov or 501-907-2430 for any urgent issues.

Urolithiasis in Veterinary Medicine

Urolithiasis affects many canine and feline companion animals.

It is defined as the development of calculi or stones (uroliths) anywhere in the urinary tract. Microscopic crystals of mineral and chemical solutes may form in highly concentrated urine and may continue to develop into larger, macroscopic uroliths. Symptoms depend on the location in the urinary tract and size of the stones. Some animals may be asymptomatic or develop mild symptoms, and others may develop serious complications such as uremia.

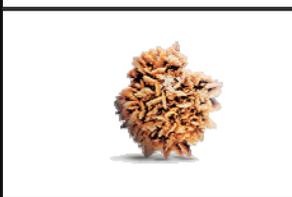
Sediment analysis and urinary stone analysis are imperative to the treatment and prevention of urolithiasis.

Both tests are performed at AVDL. Sediment analysis is part of a complete urinalysis and utilizes light microscopy to detect crystals within centrifuged urine. Urinary stone analysis utilizes Diffuse Reflectance Infrared Fourier Transform Spectrometry (DRIFTS) to determine urolith composition.



Struvite

- Most common urolith seen at AVDL.
- Commonly associated with urinary tract infections caused by urease-producing bacteria like *Staphylococcus* spp. or *Proteus* spp.



Calcium oxalate

- Some canine breeds prone to hypercalciuria may be predisposed to develop this type of urolith.
- A diet low in oxalate, protein, and sodium is ideal for prevention.



Cystine

- Caused by cystinuria, a renal tubular reabsorption defect resulting in high concentrations of cystine in urine.
- Typically reoccur within one year without clinical management.



Urate

- Most common in dogs with congenital portosystemic vascular shunts.
- High concentrations of ammonium and urate in urine leads to urolith formation.

We appreciate your business!

If you have any **questions/ concerns**, please don't hesitate to call (501) 907-2430. We are more than happy to speak with you.

Is there a **test or service** you would like for us to offer? A better way we can provide you with **results**? Please let us know!

Prefer e-mail? Let us know! Also, the newsletter, our most updated Fee Schedule, and our Submission Forms are online at alpc.arkansas.gov.

Nights, Weekends, and Holidays

Don't forget to call our emergency phone number **(501-773-2456)** to speak with a veterinarian regarding after hours necropsy submissions or any urgent laboratory issue.

Do you have something to contribute?

If you have an interesting disease topic or case you would like to inform your Arkansan colleagues about, please contact Dr. Virginia Charney at vcharney@alpc.ar.gov for more information.

Please Note: West Nile Virus ELISA testing was previously forwarded to TVMDL for IgM testing. AVDL will now send all West Nile Virus ELISA requests to Cornell-ADHC for IgM/IgG testing. There will not be an increase in cost to clients for the additional testing.

Dog Flu: Canine Influenza Type A

Overview: Type A influenza viruses cause canine influenza in dogs. The causative strains are classified as H3N8 and H3N2 based on their viral compositions. The H3N2 strain was believed to be limited to Korea, China, and Thailand until it was determined to be the source of an outbreak in Chicago in March 2015. The H3N8 strain is believed to be an equine influenza strain that has adapted to be infectious in dogs.

The Virology department performs a screening test for all Influenza A strains by PCR. To date there have been no positive results at AVDL.

Transmission: The virus is spread through aerosolized respiratory secretions via sneezing and/or coughing and through contact with contaminated objects and surfaces. The virus is viable on surfaces for up to 48 hours, on clothing for 24 hours, and on hands for up to 12 hours without proper decontamination.

The typical incubation period is two to four days with the highest amount of viral shedding during this time. This means that dogs are the most contagious during the incubation period before they are showing signs of the disease.

Clinical Signs: Approximately 80% of all infected dogs display symptoms ranging from mild to severe, while approximately 20% of infected dogs are asymptomatic.

Type A influenza viruses cause an inflammatory response from the respiratory tract resulting in fever, lethargy, rhinitis, tracheitis, bronchitis, and bronchiolitis. The inflammatory response increases the likelihood of secondary bacterial infections that contribute to ocular discharge, nasal discharge, coughing, and in severe cases pneumonia.

Treatment: Recovery for otherwise healthy dogs typically occurs within 2-3 weeks of initial infection. Treatment for canine influenza virus is supportive.

Prevention: Dogs exhibiting symptoms (or suspected exposure) associated with Type A influenza should be isolated for a minimum of two weeks.

Vaccination is lifestyle dependent, meaning dogs that are housed together in large numbers and close quarters, such as boarding facilities and rescue shelters should be vaccinated against Type A canine influenza due to the high transmittal rate.

Inactivated whole virus vaccines for the H3N8 strain are currently available. In November of 2015, work began on the development of a vaccine effective against the H3N2 strain of canine influenza. It is suggested that two doses of the vaccine be given three weeks apart with subsequent yearly boosters.