

OADDLE-News

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OADDL Receives Full Accreditation by AAVLD

The Oklahoma Animal Disease Diagnostic Laboratory was recently awarded full accreditation in all species through 2018 by the American Association of Veterinary Laboratory Diagnosticians (AAVLD).

The announcement concluded a year-long effort by OADDL staff that included an extensive application process outlining the lab's overall organization and quality system and a thorough review of OADDL's processes and procedures.

The audit was conducted October 1-4, 2013 by an AAVLD auditor team comprised of experts in the areas of Microbiology, Histopathology, Molecular and Quality.

The team examined all aspects of

the lab including receipt of samples, testing and reporting of results. In addition to inspecting the laboratory functions, the auditors interviewed individuals in the lab and reviewed procedures, training and technical records, to verify that all processes met AAVLD standards.

Full accreditation indicates the laboratory is capable of providing a full range of diagnostic services including necropsy, histopathology, bacteriology, virology, mycology, molecular diagnostics, serology and toxicology.

OADDL is the only AAVLD accredited laboratory in Oklahoma and one of only 35 laboratories in North America.



Feedback is always welcomed. Let us know how we can better meet your needs. Call 405-744-6623 or email us at oaddl@postoffice.cvhs.okstate.edu.



CENTER FOR VETERINARY HEALTH SCIENCES
Healthy Animals — Healthy People

Letter from the Interim Director

We are proud to generate our first E-Newsletter. It is our goal to utilize this forum to update clients and prospective clients on relevant laboratory information, diseases of veterinary importance, and contemporary topics in diagnostic medicine.

In 2013 OADDL had a productive year. We processed 18,724 accessions, which translated to 36,578 test requests. In October, a team of auditors from the American Association of Veterinary Laboratory Diagnosticians completed a thorough review of OADDL and extended our accreditation in all animal species for another five years. AAVLD re-accreditation is a testament to our commitment to provide accurate, timely, and cost-effective veterinary diagnostic services to clients.

We appointed new members to our Board of Advisors in 2013. These individuals represent various commodity

groups and will be instrumental in providing feedback regarding diagnostic needs from each of these interest groups. We are excited to have these new members on board and are looking forward to the continued growth and development of the laboratory as new services are brought on line.

Last year was also a year of transition for us. Several OADDL faculty and staff retired or left to pursue other opportunities. In future issues of the e-Newsletter, we plan to spotlight our faculty and staff, with the hope that we can be more than just a voice on the telephone or someone on the other end of an email. Our search for a permanent Laboratory Director will continue in 2014.

We value your continued support and encourage you to provide input on how we might better meet your needs.

— K. Bailey, DVM, PhD, DACVP

New Equipment- MALDI-TOF

OADDL recently acquired a state of the art Matrix-Assisted Laser Desorption/Ionization-Time Of Flight mass spectrometer (MALDI-TOF mass spec) for rapid bacterial identification.

This instrument uses laser energy to vaporize cultured bacterial colonies and release ionized bacterial proteins. A signature mass spectrum generated from the ionized particles is then used to identify bacterial pathogens. The instrument has been validated for routine operation in the lab and will reduce bacterial identification time by 24-36 hrs.

For further questions, contact Dr. Akhilesh Ramachandran, BVSc, PhD, DACVM, Section Head of Microbiology and Molecular Diagnostics.

New Testing - Contagious Equine Metritis Test Now Available at OADDL

Contagious equine metritis (CEM) is a venereal disease of horses caused by the bacterium *Taylorella equigenitalis*. Acute and chronic infections can occur in mares resulting in infertility and abortion. Stallions are asymptomatic, but may serve as carriers of the bacterium.

Submission Requirements

Amies transport media with charcoal is required. Samples must be transported to OADDL with sufficient ice packs to keep the samples cold, but not frozen and arrive at the lab within 48 hours of sample collec-

tion. Paperwork for sample submission must include collection date and time, animal identification and collection site.

Sample Requirements

One site per swab, one swab per tube.

- Stallions - Four swabs, prepuce, urethral sinus, distal urethra and fossa glandis (including the diverticulum of the fossa glandis) - Price \$80
- Mares - Three swabs clitoral fossa, clitoral sinus and distal cervix/endometrium - Price \$60

Special small diameter rayon swabs

should be used for clitoral sinus sampling. Standard sized swabs should be used for all other sites.

Training in obtaining samples is available at: https://ahdc.vet.cornell.edu/docs/CEM-Culturing_Contagious_Equine_Metritis.pdf.

Specimens that are not properly identified or are in poor condition will not be tested.

If samples appear sterile (failure to culture commensal bacteria) or are highly contaminated, resubmission of fresh samples will be required.

Testing for regulatory purposes cannot be performed if samples are:

- Received more than 48 hours after collection.
- Submitted in broken vials/tubes.
- Submitted in expired media or in any media type other than Amies transport medium with charcoal.
- Not cold upon arrival.
- More than 1 swab/site per transport medium is submitted.



Photo courtesy of OSU Agricultural Communications Services

Understanding *Tritrichomonas foetus* (Trich) Pooled PCR Testing

Pooled PCR testing is an economical and effective method of screening large numbers of particularly young (virgin) bulls, older bulls from historically Trich-free herds or bulls that have routinely tested negative.

Pooled PCR charges will be \$25/pool plus \$5 for each pouch making up the pool.

For example:

- A pool of 5 bulls would cost \$25 plus $5 \times 5 = \$50$ total (cost savings of >65%)
- A pool of 2 bulls would cost \$25 plus $5 \times 2 = \$35$ total (cost savings of >40%)

NOTE: If a pool is positive, individual pouches will be tested at \$25 each.

A “Tritrichomoniasis PCR Submittal Form” is available on our website, www.cvhs.okstate.edu/oaddl.

Samples must be collected and submitted individually. All pooling will be done at OADDL. Samples should be

shipped at room temperature by overnight courier.

Upon receipt at OADDL, samples will be incubated at 37 C for two overnights prior to testing. Samples may be pre-incubated at your facility at 37 C for two overnights, shipped overnight and tested upon receipt.

Please verify Bovine TF InPouches™ are not expired. Expired

pouches cannot be tested.

When submitting large numbers of samples, please notify the lab prior to collection. Pooled samples may not be accepted by some states, export countries or sale companies. Verify requirements prior to test submission.

Pooling is not allowed on bulls from multiple owners (e.g. livestock markets).



Photo courtesy of Clarissa Fulton

Biopsy Submissions Format: Choosing Between Short and Long Report

OADDL currently offers two reporting formats for biopsy (histopathology) case submissions: short report and long report. The primary difference in the two reporting formats is the absence or presence of a detailed microscopic description for the tissue(s) examined.

Short Biopsy Report

The short biopsy report format provides veterinarians with the diagnosis and relevant comments from the pathologist interpreting the lesion. The intent of the comment section is to provide additional information on the histological process such as completeness of surgical excision, biological behavior or expected prognosis (particularly for neoplastic disease), potential etiologies (for infectious or toxic processes) or otherwise differential diagnosis. The comment section is also used to communicate additional pending tests (that may delay final report) or suggestions for further investigation. Journal articles are occasionally referenced to direct

veterinarians to contemporary grading systems or information on the disease processes.

Long Biopsy Report

In addition to the information provided in the short report format (see above), the long or detailed report also includes a description of the microscopic changes present in the tissues examined. For neoplastic disease, this often includes the appearance of the tumor cells, nuclei, nucleoli, and an approximation of the mitotic index. For non-neoplastic disease, this includes a description of the type of tissue injury or reparative process observed.

In summary, both report formats contain diagnosis and comment sections; the long report adds a detailed histological description.

Which report is right for you?

The individual preference of submitting veterinarians is based on uniqueness of the particular case and cost. Currently, most OADDL clients request short report format, which

provides sufficient information for most situations. Long reports are typically requested by veterinarians that are working up complicated cases, cases that have legal or insurance ramifications, or by veterinary specialists (such as internists and oncologists) that use the detailed information in the histological description to guide and direct treatment.

— Keith L. Bailey, DVM, PhD, DACVP

— Jerry W. Ritchey DVM, PhD, DACVP

Special Announcement

Elimination of the OADDL Accession Fee!

OADDL announced the elimination of the Accession Fee, effective April 1.

Despite minor fee adjustments, many will notice a net decrease in their invoices.

Visit our website for an updated fee schedule at www.cvhs.okstate.edu/oaddl.

OADDL Toxicology Tips and Guidelines

MSMA (monosodium methanearsonate) is often used in yards because it can kill crabgrass and not Bermuda grass. No grazing restrictions are listed for this product because the only way it is removed from a plant is by a good rain. If it doesn't rain for 2 months, the MSMA is still on the plant. Dogs eating grass treated with MSMA have been poisoned.

Wilted maple leaves can cause hemolytic anemia in horses. After storms, remove broken maple limbs to prevent ingestion.

The potential for cyanide toxicosis increases with stressful weather conditions. Many grasses, (Sudan, Johnson, arrowgrass), certain trees, (wild black cherry, chokecherry, plum), white clover and nandina (heavenly bamboo shrubs) are all cyanogenic plants.

Plant clippings should be disposed of properly (do not be throw into an adjacent property). Yew (*Taxus*), azalea and oleander are all cardiotoxic shrubs. Tomato & potato vines, onion & garlic

stems, rhubarb leaves, flower bulbs and castor beans are all toxic to livestock and pets. Lilies are toxic to cats. Assume mushrooms are toxic until proven otherwise.

Problems with pond water during drought include increased sulfate levels & blue-green algae blooms. Toxic blue-green algae can be identified at our laboratory for \$11. Water should not be hauled in fertilizer tanks unless they are thoroughly washed out. Every year we lose cattle this way.

See our fee schedule for a complete list of tests at www.cvhs.okstate.edu/oaddl.

- S. Morgan, DVM, MS, DABVT



ICP-MS for metal and mineral analysis.

Request For Sample — Free Testing

OADDL is currently working on PCR validation for these tests:

- Leptospirosis PCR- kidney or urine
- Ureaplasma PCR- lung or bacteriology-culture
- Feline Trich PCR- feces

To aid the validation process we are offering these tests free of charge. Contact Dr. Akhilesh Ramachandran for more information 405-744-6623.

OADDL Submission Tips

Incomplete or inaccurate submittal forms can create delays or errors in testing, reporting and/or billing. OADDL understands that filling out forms is time consuming and we are happy to help you streamline the process.

Following these tips will avoid delays. We know you run busy clinics and we don't want to interrupt your day with more questions.

A fillable form is available for your convenience on our website at www.cvhs.okstate.edu/oaddl. You can also order forms from our office with your clinic information already populated.

Reporting/Billing

Clearly designate who the report and bill should be sent to.

Specify Test Type

Order specific tests. This streamlines the processing of your samples.

Provide a History

A good history allows us to better meet your testing needs. Some treatments, such as antibiotics and vaccinations, can interfere with test methods. We know this part takes time, so please take advantage of our on-line/ fillable form. A valuable history does not need to be lengthy.

Packaging

Use proper packaging to avoid damage to your samples. When submitting multiple samples, it is helpful if they are packaged in a manner to facilitate matching of samples with the Animal IDs on the paperwork.

2014 Equine CNS Testing Subsidized By ODAFF

OADDL will continue testing horses with clinical signs of central nervous system (CNS) disease in 2014. This screening of horses for viral diseases will be funded by the Oklahoma Department of Agriculture, Food and Forestry (ODAFF).

There were 41 positive West Nile Virus horses identified (24 of those in October) and 1 Rabies positive horse in 2013.

The major emphasis of this testing will be surveillance for Equine Herpes Virus (EHV-1); however c-ELISA testing for West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE) is also included at no expense to owners.

All horses exhibiting clinical signs of CNS disease are eligible for this program. Sample submission requirements and test schedule are provided below, and a specific OADDL submission form is also available at www.

cvm.okstate.edu/oaddl.

Samples can also be submitted with the regular OADDL submission form, with request for testing specified as "OADDL-ODAFF Equine CNS Profile."

Required Samples for ODAFF subsidy testing of EHV, WNV and EEE:

- Serum (clotted blood/red-top tube):
Two (2) 6 ml tubes.
- Whole (EDTA) blood (purple-top tube): Minimum 6 ml tube.
- Nasal swabs:
In RTT with 1 ml sterile saline.
Note: Plastic (non-wooden) shaft and synthetic (e.g. Dacron) swabs are recommended. Swab the nasal mucosa 6-18 inches into the external nares.

For more information, contact Dr. Grant Rezabek at 405-744-6623.