

PRAIRIE DIAGNOSTIC PERSPECTIVE



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FEE UPDATE – EFFECTIVE JUNE 1, 2025

Prairie Diagnostic Services (PDS) will be updating its fees effective June 1, 2025. Most test prices will increase by 6%. Keep an eye on your inbox — the updated 2025 Tests & Services Guide will be sent out in late May. We appreciate your continued support and partnership.

Fetus Submissions for Necropsy

Monogastric fetuses or neonates under 10 days of age from a single dam (e.g., twins, litters) and small neonates (under 10 kg), such as suckling piglets from the same barn problem, will be handled as one submission and will be processed as a single necropsy fee.

Note: if individual processing and reporting is required, the regular necropsy fee will apply per animal.

IMPORTANT: EFFECTIVE JUNE 1, 2025: Up to 2 ruminant fetuses or neonates under 10 days of age from a single dam, will be handled as one submission and processed as a single necropsy fee. Additional fetuses from the same dam (e.g., triplets) will receive a second submission fee at a reduced rate.

Antimicrobial Susceptibility Testing (AST): Interpretation of results

Prairie Diagnostic Services lab usually provides one AST for the most significant pathogen in any given case. When multiple pathogens are isolated, clients are kindly asked to submit a formal request if they would like additional ASTs performed (please note that additional charges will apply).

AST results are interpreted according to Clinical and Laboratory Standards Institute (CLSI) guidelines. However, CLSI doesn't provide AST interpretation criteria for all the bacterial spp. isolated from clinical cases. In such cases, results are reported as "No interpretation criteria available" (N/I). However, N/I does not imply that therapy would be either successful or unsuccessful, but rather that good clinical judgment should be used in selecting a dosing regimen for the related antimicrobial drug.

Diagnostics are not allowed to provide any therapeutic suggestions however, according to the test results we can predict the possible clinical outcome if an appropriate antimicrobial drug is used. We strongly suggest that clinicians consult appropriate reference materials for treatment options in cases where antimicrobial breakpoints are not available.

Premise Identification in Saskatchewan

Premises Identification (PID) is mandatory in Saskatchewan and an integral part of livestock traceability. Maintaining an up-to-date PID account supports emergency preparedness and response efforts.

We understand you may not know the PID number of your clients and as such the space is left blank on the PDS submission forms. That is okay! We kindly ask that you ensure your PID account is up to date, and that you share the message with your clients. PID information can be found at [Premises Identification](#). You can also register or update your account directly through [the online portal](#).

If you have any questions about PID please contact the Provincial Livestock Specialist for Traceability, [Alicia Sopatyk](#), 306-510-7925.

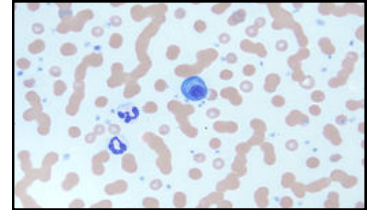
Multiple Myeloma in a Dog

Dr. Calandra Chuback, DVM, PhD student

Recently a canine patient was seen at the veterinary medical center in WCVI for recurrent epistaxis. A CBC and chemistry panel were performed. CBC revealed a mild non-regenerative anemia with rare plasmacytoid cells such as the cell located centrally in the figure, on a highly proteinaceous background with moderate red blood cell rouleaux. The chemistry panel revealed marked hyperglobulinemia. On CT scan an underlying cause for the reported bilateral epistaxis was not apparent. Bone marrow aspirate cytology and core biopsy revealed marked plasma cell infiltration.

Serum protein electrophoresis (Animal Health Laboratory, Guelph) detected a monoclonal gammopathy in the gamma globulin region and necropsy showed evidence of plasma cell infiltration in spleen, submandibular lymph node and kidney with osteolytic lesions in rib. Moderate to intense methyl green pyronin stain uptake confirmed plasma cell origin.

A diagnosis of multiple myeloma was made. Multiple myeloma can be associated with a variety of pathologic conditions including a bleeding diathesis as was reported in this patient.



High circulating levels of a single type of immunoglobulin (M-component) can interfere with normal coagulation and lead to hemostatic defects by various mechanisms involving platelet aggregation, adsorption of clotting factors, fibrin polymerization and functional decreases in calcium. Short term prognosis in dogs receiving chemotherapy to reduce tumor burden and normalize serum Ig is good. However, long term prognosis is generally poor due to the high likelihood of tumor relapse, recurrence of clinical signs and development of resistance to chemotherapeutic agents.

References

Brooks, M. B., Harr, K. E., Seelig, D. M., Wardrop, K. J., & Weiss, D. J. (Eds.). (2022). *Schalm's Veterinary Hematology* (7th ed.). Wiley-Blackwell

Toxicology Update - Toxicoses of 2024

Vanessa Cowan DVM PhD

In 2024, the veterinary toxicology laboratory diagnosed 76 poisonings. These cases occurred in livestock predominantly, however cases were also seen in companion animals and wildlife. In livestock, the most commonly diagnosed poisoning in cattle was acute lead toxicosis. The lab diagnosed 32 cases in total, corresponding to 20 herds affected. Most cases occurred in Saskatchewan (9 herds), followed by Alberta (7 herds), Manitoba (3 herds), and British Columbia (1 herd). Most cases were diagnosed postmortem using liver. Lead poisoning has been the most common poisoning in cattle for the past several decades. As such, any cattle herd with polioencephalomalacia (PEM) symptoms should be tested for lead. Additionally, in herds with lead-poisoned cattle, all members of the herd should be tested for lead exposure. Whole blood (i.e., a green top tube) is the sample of choice to check for lead exposure and poisoning in live animals.

Lead poisoning was also the most commonly diagnosed poisoning in wildlife in 2024. The wildlife species affected were Bald Eagles, Golden Eagles, and Trumpeter Swan. Wildlife, particularly carrion scavengers like eagles, become poisoned by consumption of lead fishing tackle (like sinkers, for example) and spent lead ammunition from scavenging carcasses.

The second most commonly diagnosed poisoning in livestock in 2024 was chronic copper toxicoses. This was diagnosed only in small ruminants. In one case that described classic lesions of chronic copper toxicoses had hepatic copper within the normal range. Fortunately, the veterinarian had also collected kidney, and the copper concentration in the kidney confirmed the suspected diagnosis.

This highlights the importance of submitting both liver and kidney in cases where copper poisoning is suspected. Small ruminants, especially sheep, are more susceptible to chronic copper toxicosis due to enhanced uptake of copper into the liver and slower elimination of copper from the body. When chronic copper poisoning occurs in a flock, the source of copper needs to be identified to prevent further exposure. This poisoning tends to be a herd-level problem as the feed is the most common source of excess copper.

The third most frequent diagnosis in livestock was salt toxicosis, also known as sodium ion water deprivation poisoning. Salt poisoning is another differential diagnosis for PEM symptoms, in livestock, especially where there is a history of water deprivation. Salt poisoning was also diagnosed in wildlife as well, specifically ungulates. Water deprivation can include lack of water consumption due to poor palatability, competition for water amongst the herd, or inaccessible water (i.e., frozen watering bowls or electrified water). Brain is the sample of choice for diagnosis in deceased animals.

In terms of companion animals, the toxicology lab diagnosed five cases of poisoning in dogs. This included three cases of poisoning with the rodenticide strychnine (all of these dogs were from the same household), one case of acetylcholinesterase inhibitor insecticide poisoning (i.e., organophosphate or carbamate insecticides), and one case of salt poisoning. In exotic companion animal species, zinc poisoning was diagnosed in a parrot and hypervitaminosis A was diagnosed in a turtle.

If you have any questions regarding diagnostic testing for suspect poisonings or would like to consult on a case, please do not hesitate to reach out at vanessa.cowan@usask.ca.