## **Operational Policies Clinical Pathology Section of the**

Kansas State Veterinary Diagnostic Laboratory Rev. 6/2022

## **Laboratory Hours**

• Regular hours: 7 am to 5 pm, Mon – Fri (except University Holidays)

• Saturday hours: 8 am to 12 pm (except University Holidays)

• Emergency hours: All others

## **Laboratory Samples**

- Sample MUST be labeled with VHC medical record number and sample date; owner's name is not required but frequently helpful.
- Request form must have a matching VHC medical record number, sample date, owner's first & last name, clinician's name, student's name, and animal's species

**VHC Samples** 

Information	Sample	Request form	
Animal ID	Required	Required	
Sample Date	Required	Required	
Owner's name	Desired	Required	
Clinician's name		Required	
Student's name		Required	
Species		Required	
Sample Time	Desired	Desired	
Breed		Desired	
Sex		Desired	
Age		Desired	
Sample source	Required for samples		
	other than blood and urine		

- Samples will not be processed or analyzed without the required information. If the required information is not available, the submitting clinician or student will be paged and asked to provide the required information.
- The sample and form requirements apply to all samples (regular hours or emergency hours).

## **Laboratory Tests Offered:**

- Most of the offered laboratory tests are listed in the "Submission Form" for the Clinical Pathology Laboratory.
- Please consult the laboratory personnel if you have any questions about sample collection or handling for a particular test
- If a desired test is not listed, ask at the clinical pathology lab window. If we do not offer the test it can be referred out via KSVDL receiving window
- A list of laboratory services available during "Emergency Hours" basis is shown later.

#### **Cut-off Times (COTs) or Turn-around Times (TATs)**

COTs or TATs are established for two major reasons: 1) allows clinicians to schedule their management of cases; 2) allows laboratory personnel to schedule the completion of assays. For the majority of the laboratory assays (CBCs, typical clinical chemistry assays, routine urinalysis), the TATs for the laboratory are listed below.

The time it takes to actually analyze patient samples frequently occupies less than half of the laboratory's staff time. The laboratory staff must also log samples into the laboratory, prepare samples for analysis, complete clerical aspects in recording and reporting results, perform routine and special maintenance procedures on the instruments, analyze quality control samples, trouble-shoot instrument and assay problems, and order supplies and reagents. To complete these tasks efficiently and accurately, it is best that we maintain a routine schedule.

If samples are not submitted by the late afternoon cut-off time, then the samples will be held for analysis the next day. Because "regular hours" are limited to Monday through Friday, samples submitted late Friday afternoon may not be assayed until Monday.

If laboratory analyses are needed that do not conform to our established COTs schedule, clinicians may come to the laboratory to see if the analyses can be completed to meet the special needs. The ability of the laboratory to respond to these special requests will depend on day's workload and staffing.

#### Web Access to Results

As soon as the results have been approved by a medical technologist, a resident, or a pathologist, those results are available via the Kansas State Veterinary Diagnostic Laboratory Web Access Reports. This site is password protected because of the confidentiality of the information. Faculty, residents, interns, and veterinary students are given the password by direct contact.

## **Requests for STAT Analyses**

- A clinician's signature is required on the request form.
- The assays requested as a STAT are noted on the request form. Select only the specific tests that need STAT results; the remaining tests on the request form will be completed according to routine work-load scheduling.
- Please be judicious in your use of STAT analysis request to assays that are critical to the life of the patient or emergent treatment decisions

## **Cut-off Times¹: Submission** → **Expected**

Hours of Operation (except University holidays)

Regular hours: 7 am – 5 pm, Monday – Friday (page intern after 4:45 pm)

Saturday hours: 8 am – noon (page intern after 11:30 am)

Emergency hours: All other times

Laboratory assays	Samples submitted by:	Expect results by:1
NOVA chemistry assays Blood Gases & Lactate NOVA Electrolyte Panel NOVA Full Panel	$ \begin{array}{ccc} 5 \text{ pm (M-F)} & \rightarrow \\ \text{noon (Sat)}^3 & \rightarrow \end{array} $	Within 1 hour
CBC (mammalian) Routine chemistry assays (blood, serum, plasma) Routine urinalysis	9 am (M-F) → 4:00 pm (M-F) <sup>2</sup> → 10:30 am (Sat) <sup>3</sup> →	1 pm <sup>4</sup> Same day <sup>4</sup> Same day <sup>4</sup>
CBC (non-mammalian)	8 am–4 pm (M-F) → 10:30 am (Sat) <sup>3</sup>	Within 24 hr Next working day
Urine chemistry assays (microprotein, creat. etc)	$\begin{array}{ccc} 9 \text{ am (M-F)} & \rightarrow \\ 3:30 \text{ pm (M-F)} & \rightarrow \\ 10:30 \text{ am (Sat)}^3 & \rightarrow \end{array}$	1 pm <sup>4</sup> Same day <sup>4</sup> Same day <sup>4</sup>
Coagulation assays (PT, PTT ) Crossmatch (major and minor)	8 am–3:30 pm (M-F) 10:30 am (Sat) <sup>3</sup>	Usually 2 hr (consult lab)
Bile Acid, Ammonia, Osmolality, Rumen Chloride	9 am (M-F) → 3:30 pm (M-F) →	1pm <sup>4</sup> Same day <sup>4</sup>
Immunoassays (T4, etc.)	12 pm cutoff (M-F)	Same day
Cytologic exam of tissues (aspirates, imprints, etc) Routine body fluid analyses (pleural, peritoneal, synovia, CSF) Bone marrow cytologic exam Blood film examinations(atypical cells, organisms)	4 pm (M-F) → After 4 pm (M-F), consult on-duty pathologist, STAT fee may be required	Same day
STAT request for CBC, routine chemistry assays, crossmatch, coagulation	7 am – 4 pm (M-F) 8 am – 11:30 am (Sat) <sup>3</sup>	Assayed immediately <sup>5</sup>

<sup>&</sup>lt;sup>1</sup> These times are established assuming instruments are functioning properly and a minimum of three medical technologists are working (M–F). Otherwise, time to complete the analysis may be prolonged.

<sup>&</sup>lt;sup>2</sup> Blood samples submitted after the afternoon submission deadline will be held over for analysis the next day (except Fridays) unless STAT analysis is required.

<sup>&</sup>lt;sup>3</sup> Limit Saturday morning requests to those assay results needed for immediate case management; only one med. tech. on duty.

<sup>&</sup>lt;sup>4</sup> Except for samples that require an examination by pathologists who may not be available because of classroom or other academic responsibilities. Preliminary results will typically be available by expected deadlines.

<sup>&</sup>lt;sup>5</sup> STAT analysis of samples is provided for emergency cases in which data are needed for immediate case management.

## **Emergency Hours**

During Emergency Hours, emergency services are requested as follows.

- Attending clinician asks personnel at the Discharge Desk to page the On-duty Diagnostic
  Medicine Intern depending on the test to be performed. The sample should be collected
  prior to contacting the Diagnostic Medicine Intern. The only test that may be collected
  after the arrival of the Diagnostic Medicine Intern is blood gas analysis.
- The **On-duty Diagnostic Medicine Intern** will respond to the page within 20 minutes to initiate the analysis of the samples. If the intern needs assistance from a medical technologist or pathologist the intern will page the "on-call" person.
- The VDL intern schedule is at the emergency/discharge desk.
- Please Note: It is the clinician's responsibility to determine who should be called in. The role of the discharge desk is to make the call to the diagnostic medicine intern. Please tell the discharge desk what sample you are submitting so the intern can ensure the correct person is arriving to perform the test.

# Clinical Pathology Tests Available during Emergency Hours (additional fees apply)

Test	Notes	Intern	Resident	Pathologist
CBC	CBC with preliminary differential count CBC without differential count Hematocrit (spun) Note: Non-mammalian CBCs are not performed after hours.  **Pathologist review of blood films will occur the next business day, if needed.	X		
Chemisty Panel	<ul> <li>Chemistry Panels: Small         Animal, Large Animal, Renal,         Electrolyte, and Avian/Reptile</li> <li>Individual Chemistry         Assays: any test included in the         above panels plus amylase,         lipase, triglyceride, and         magnesium (total) may be         ordered on an individual basis.</li> </ul>	X		
Coag Panel	PT, PTT	X		
Blood Gas	Blood gases (pH, pCO <sub>2</sub> , PO <sub>2</sub> , & associated calculated values), blood electrolytes (Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , fCa <sup>2+</sup> , fMg <sup>2+</sup> ), and other blood analytes (lactate, urea nitrogen, creatinine, glucose)	X		
Bacterial Culture		X		
Crossmatch	Major and Minor	X		
Fluid (cell count only)	Peritoneal and pleural fluids (TP <sub>ref</sub> , TNCC)	X		
Fluid with cytology	Peritoneal and pleural fluids (TP <sub>ref</sub> , TNCC) with microscopic evaluation and cytology report	X		X
Cytology (smears)	Microscopic examination and report	X		X
CSF analysis partial	WBC count, RBC count	X		
CSF analysis	WBC count, RBC count, microscopic exam with report Note: microprotein concentration performed next business day			X