

News

July • 1999

ANTECH
D I A G N O S T I C S

Lab Locations

Atlanta
Georgia

Chicago
Illinois

Dallas/
Fort Worth
Texas

Denver
Colorado

Honolulu
Hawaii

Houston
Texas

Los Angeles
California

Memphis
Tennessee

New York
New York

Phoenix
Arizona

Portland
Oregon

San Francisco
California

Tampa
Florida

SAMPLE PREPARATION FOR AVIANS AND EXOTICS

SPECIMEN COLLECTION

Microtainers are preferred for specimens of small volume. It is important to pay careful attention to handling and filling of the specimen tubes.

Tubes containing anticoagulant also have a small plastic bead or donut to aid in proper sample mixing. These must be *at least 1/2 full* to achieve a usable anticoagulant: blood ratio. *Mix well* by inversion (at least 5 times) immediately after collection to prevent clotting.

Tubes without anticoagulant are filled with the requisite volume and left for at least 1/2 hour at room temperature or until clotting is achieved.

If required, centrifuge the specimen and transfer plasma or serum to a plain red-top microtainer (unless a separator tube is used which eliminates the need for transfer).

Green Top Tube, Plain (without separator gel), contains heparin, and can be used for tests requiring heparinized plasma or whole blood.

Green Top Separator Tube also contains heparin plus an inert separator gel, and is the preferred specimen for tests requiring heparinized plasma.

Lavender Top Tube contains EDTA and is generally used as the specimen of choice for avian and small mammal CBC and other studies of blood cells. Certain tests also recommend EDTA plasma (see table).

Red Top Tube, Plain (without additives) is used for any test requiring serum. After the specimen has clotted, the serum should be separated from the blood cells promptly to obtain optimum results.

Brown Top Separator Tube contains an inert separator gel which eliminates the necessity of transferring the serum to another tube after centrifugation. These tubes should *not* be used for measuring drug levels.

Microhematocrit Tubes (plain or heparinized), 2 or more, also can be used for some tests (see table)

COCCIDIOIDES SEROLOGY

Antech is pleased to announce an update in the methodology we use for coccidioides serology. We will now use AGID for both IgG and IgM titers. Complement Fixation will be available for a short period of time for those monitoring patients. An AGID titer will be provided with all CF titers for comparison.

LAB TIPS

WBC COUNTS IN AVIANS AND REPTILES USING DIFFERENT METHODS

Antech's Research Department initiated a study to assess whether discrepancies exist when the total and differential WBC counts are determined by three different methods (Unopette, Estimate and Cell Dyne). With the Becton Dickinson Unopette microcollection system, leukocytes are counted in diluted blood placed in a hemacytometer. With the Estimate method, the number of leukocytes per 40 x objective, from at least five fields, are counted on a Wright's stained blood smear. The average number of leukocytes is then multiplied by 1000 to make an estimated total white cell count. The Abbott Cell-Dyne 3500 automated CBC analyzer uses a laser beam and measures the light scattered by the cells to give the total and differential leukocyte count.

Statistical analysis revealed no clinically significant difference between cell counts performed by the Estimate or Unopette methods. However, the Cell-Dyne automated instrument produced a significantly higher total leukocyte count as compared to the average result of the other two methods. Based on these findings, **the Estimate or Unopette methods are recommended as an acceptable procedure for avian and reptile WBC counts.**

MINIMUM TEST REQUIREMENTS

TEST DESCRIPTION	SPECIMEN REQUIREMENTS	TEST DESCRIPTION	SPECIMEN REQUIREMENTS
Acid Fast Stain	Fresh smear on glass slide (blood, feces, cloacal swab).	Fecal Concentration	Feces (marble size) for detection of smaller ova, larvae, Giardia and protozoan spp.
Aleutian Mink Disease	50 µL, S, P, or 2 full microhematocrit tubes.	Fecal Flotation (Ova/Parasites)	Feces (marble size) for detection of larger ova, larvae and coccidia spp.
Aspergillus Antibody (non-avian)	100 µL, S, P.	Fecal Digestion	Feces (marble size).
Avian Aspergillus Antibody	50 µL, S, P or 2 full microhematocrit tubes.	Giardia spp. (ELISA)	Feces (pea size).
Bile Acids	150 µL, S or GP.	Gram Stain	Specimen smeared thinly on glass slide.
CBC, Mammals*	150 µL, LWB or GWB plus 1-2 fresh blood smears on glass slides, <i>not</i> coverslips.	Insulin Level	150 µL, S or GP.
CBC, Avians, and Reptiles*	2 microhematocrit tubes at least 1/2 full, plus 1-2 fresh blood smears on glass slides. LWB or GWB also can be used but freshly prepared slides are preferable.	Lead Level	150 µL, LWB or GWB (<i>must</i> be WB). (LWB is preferred specimen).
Chemistry Profile*	200-250 µL, S or GP. Less volume may preclude running all tests. Up to 3 x dilution can be made but some tests are affected by dilution. Please prioritize tests needed on Test Request Form.	Occult Blood	Fresh feces (pea size). No meat should be eaten 24 hr beforehand.
Chlamydia Antigen	Feces, R or minitip culturette. Do <i>not</i> push swab into culture medium.	Pasteurella Antibody	150 µL, S or GP.
Chlamydia Antibody	100 µL, S, GP, GWB, LP or LWB.	Psittacine Beak and Feather Disease	150 µL, GWB (<i>must</i> be WB). Swab cut surfaces of liver, spleen or kidney and place in culturette but do <i>not</i> push into transport medium. Also submit several "blood feathers" taken from a suspicious area for histology.
Chlamydia PCR	150 µL, GWB <i>and</i> fecal/cloacal swab in culturette, but <i>not</i> pushed into culture medium. Do <i>not</i> send feces. Both samples are preferred, although testing can be done on separate samples.	Platelet Count	150 µL, LWB preferred. Can be run along with CBC or separately. Actual count cannot be made for avians and reptiles as their platelets usually aggregate.
Cryptosporidiosis, Reptiles	Feces, for IFA.	Polyoma Virus	150 µL, GWB.
Cultures, Bacterial	Only use culturettes supplied by Antech, as they contain the Amies transport medium used for all routine testing.	Protein Electrophoresis	50 µL, P (mammals) or GP (avians); includes total protein.
Distemper Antibody, Ferret	100 µL, S <i>only</i> .	Reticulocyte Count	50 µL, LWB (preferred) or GWB.
Encephalitozoon Antibody (E. cuniculi)	150 µL, S or GP.	Stone Analysis (Calculi)	Dry, in clean container.
		Urinalysis	400 µL, fresh urine, R.
		Zinc Level	50 µL, GP or S. Do <i>not</i> use tubes with rubber stoppers as specimen may become contaminated.
		Zoogen Sexing (Avian)	100 µL, GWB or 2 micro-hematocrit tubes.

* Depending on the patient's packed cell volume (PCV) about 1/3-1/2 of WB volume will be P or S. If only a small volume can be collected, use 1 plain G and do *not* centrifuge. Unless otherwise prioritized, a "mini" CBC will be run (PCV, estimated WBC and differential) plus as many chemistries as possible.

B = Brown Top Tube
P = Plasma

G = Green Top Tube
S = Serum
LWB = Lavender Top Whole Blood

L = Lavender Top Tube
R = Red Top Tube
GWB = Green Top Whole Blood

WB = Whole Blood
GP = Green Top Plasma

Join us at our Web Site @ antechdiagnostics.com

ANTECH
D I A G N O S T I C S