

## General specimen collection guidelines:

Please complete a laboratory submission form for each submission. As a minimum, we require the following information:

- Brief but relevant history (please note if the animal was recently travelling outside of Canada)
- Animal species and age
- Site of specimen
- Symptom and treatment history
- Previous AVC laboratory number (if this is a resubmission)

**Note:** If submitting samples via courier please ensure the requisitions arrive clean and dry by enclosing them in a plastic zip-lock bag, separate from the samples and ice packs.

**AVC Diagnostic Bacteriology Laboratory is a Risk Group 2 (Level 2) lab. Therefore, the following Level 3 samples will NOT BE ACCEPTED:**

- Brain Tissue (swabs from brain tissue are acceptable)
- Tissue or swabs from primates
- Suspect cases of blastomycosis, histoplasmosis, psittacosis. Q fever, rabies, tuberculosis or tularaemia, regardless of serology testing result. Organisms may still be present in samples when serology testing is negative. Please contact the Bacteriology Lab to determine where to send the sample.
- For Aquatic Species suspect cases of pathogens identified as Exotic to Canada by the Canadian Food Inspection Agency (CFIA)

## General Information:

- Culture swabs with transport media are the preferred specimen container for most specimens. Transport media is a non-nutrient medium that sustains the viability of organisms, without allowing significant growth. Dry swabs usually yield no bacterial growth and are not recommended.
- Label swabs/containers with the owner's name, animal ID as well as the site of the sample
- Collect sample before antimicrobial treatment is started. If this is not possible, indicate on the submission form which antibiotic was used and when treatment was started.
- Collect specimens in sterile manner (to avoid contamination with normal bacterial flora) using a sterile swab with transport media (NO dry swabs) and /or by placing it in a sterile specimen container. Take care to ensure that the exterior of swabs/containers are kept clean and uncontaminated to not endanger handlers. It is important to recognize that all samples have the potential of zoonotic transmission, and that many people handle the samples between collection and arrival at the laboratory.
- If collecting sample with a syringe, transfer contents of the syringe into a sterile container or onto a sterile swab with transport media. Do not use syringes to transport samples because they are a danger to handlers and may leak.
- Store the sample in the refrigerator until shipment and ship with freezer packs to the laboratory.
- When submitting *anaerobic culture*, Do not refrigerate sample or ship with freezer packs. (See Anaerobic Culture submitting guidelines below).

Sample Type	Recommended Sampling and Guidelines	Shipping (if different than general guidelines)	Comments
Abscesses & Wounds	Submit swab of internal wall or abscess, excised abscess or fluid contents		Contact lab if anaerobic infection is suspected.
Anaerobic Culture	Refer to notes on <u>anaerobic cultures</u>	Anaerobes are cold sensitive. Samples must be stored at room temp.	Please phone the lab prior to submitting anaerobic cultures for suggestions on best specimen to submit.
Blood	Perform a surgical preparation and withdraw approx. 10 ml of blood and inoculate directly into a specialized "blood culture media" bottle (e.g. Oxoid Signal System).	It is not recommended to ship blood culture systems. Please contact lab for further instructions.	<b>DO NOT</b> refrigerate. Blood samples in red vacutainer tubes or blood samples in anticoagulant tubes are not suitable for culture.
<i>Campylobacter</i> Culture	Submit fresh fecal sample (at least 5 grams); morning sample preferred. See <u>Feces</u> for more details. <b>DO NOT</b> send swabs.	Store in refrigerator immediately following collection. Send on freezer packs.	Contact lab for further instructions and fees.
Canine Brucellosis Testing	Submit at least 5 mL of serum. We use the rapid slide agglutination test (RSAT).		Testing done routinely on Thursdays only. If required testing on another day, additional fee will apply. Samples will be stored in the lab for 9 weeks.
Cerebral Spinal Fluid	Submit ~1 mL of CSF in sterile container		Contact lab if anaerobic infection is suspected.
Cervical Swab	Submit swabs; guarded swabs preferred		
Clostridial Infections	For Clostridial FAT: collect affected tissue (e.g. muscle, heart or diaphragm) immediately after death. <b>DO NOT</b> submit liver For enterotoxemia; submit fresh intestinal contents or ligated small intestine. <b>DO NOT</b> send swabs.		Clostridial Fluorescent Antibody Test (FAT): <i>C. chauvoei</i> , <i>C. novyi</i> , <i>C. septicum</i> , <i>C. sordellii</i>
Clostridium difficile culture	Submit fresh fecal sample (at least 5 grams); morning sample preferred. See <u>Feces</u> for more details. <b>DO NOT</b> send swabs.		Sent to referral lab at AVC.
Dermatophilosis	Collect scabs and send in a sterile container for culture and Giemsa stains.		
Ear	If submitting swabs for both ears, please ensure they are labeled accordingly.		
Eye	Submit swab from infected		

	area/lesion or from secretions.		
Feces	Submit in sterile wide-mouth leak-proof container, no more than half-full. Morning sample preferred. Submit at least 5 grams. DO NOT send samples in rectal gloves. Very small samples (e.g. from budgies) may dry out in a large container – use a swab with transport media.	Store in refrigerator immediately following collection. Send on freezer packs.	<b>Caution:</b> Feces contain many bacteria. In a confined space, gasses build up and may cause the top to blow off the container, or cause the contents to “spray” once the lid is loosened.
Johne’s Disease (M.avium subsp Paratuberculosis)	Submit fecal sample (at least 5 grams) for culture or 1 ml of serum for serology testing.	Store feces in the refrigerator immediately following collection. Send on freezer packs.	Serology is not as sensitive as culture. Turn-around time for serology: 5-7 days; for culture: 8-9 weeks. Sent to referral lab at AVC.
Joint Fluid	Submit sample on a swab with transport media. We do not recommend the submission of fluid samples.		Joint fluid submitted in a vacutainer without anticoagulant will clot, enmeshing the bacteria; vacutainers with anticoagulant will inhibit bacterial growth.
Leptospire	Submit 1 ml of serum or 1 ml of fetal fluid.		Sent to referral lab. Contact lab for information on fees.
Lower respiratory tract	Transtracheal wash, tracheal swab, pleural fluid.		
Methicillin-Resistant <i>Staph.</i> screening	Submit nasal and/or rectal swabs. Use swabs with transport media.		Screening for carrier status.
Milk	Refer to <a href="#">milk collection guidelines</a> .		For herd health testing, please notify lab ahead of time.
Mycology	Refer to <a href="#">mycotic sampling guidelines</a> .		
Mycoplasmas	Collect tissues or swabs.	Freeze the sample until shipment and ship with freezer packs.	Sent for referral lab. Contact lab for information on fees and detection methods (culture, PCR)
Nasal	Submit nasal swab, nasal biopsies, nasal flush		
Oral Cavity	Submit swabs of infected area, tissues of biopsies.		Contact lab if anaerobic infection is suspected.
<i>Salmonella</i> screening	Submit at least 5 grams of feces. Refer to <a href="#">Feces</a> for more details. DO NOT – send swabs	Store feces in the refrigerator immediately following collection. Send on freezer packs.	

Skin	Swab on infected area/pustules or collect scabs in sterile container (see <u>Dermatophilosis</u> )		
Tissues	Place individual tissues in plastic “Whirl-Pak” bags or leak-proof plastic containers. For intestines, make sure the ends are ligated. DO NOT use the same instruments to open the GI tract and other organs.	Store the sample in the refrigerator until shipment and ship with freezer packs. Pack in second outer plastic bag within shipping container. If not transporting to lab for more than 2 days, freeze the tissues.	
Urine	The preferred method of collection is cystocentesis. Samples collected by free-catch and catheter are more likely to be contaminated.	Store the sample in the refrigerator immediately following collection until shipment, and ship with freezer packs. DO NOT freeze.	For urine samples that will not arrive at the lab within 24 hours, submit urine on a swab with transport media. One charge will apply for fluid and swab specimens from the same case.
Vaginal, small animal pre-breeding	Vaginal swabs generally yield profuse growth of mixed flora. Please include a history including any signs of discharge and/or inflammation. Pre-breeding checks rely more on cytology. We cannot culture <i>Brucella</i> . Please see “ <u>Canine Brucellosis Screening</u> ” for details.		