



## **BACTERIOLOGY SECTION**

### **A. Services rendered by the section**

#### **1. Bacterial culture, isolation & identification of**

- Aerobic organisms (general bacteriology)
- Anaerobic organisms
- *Salmonella* sp., with grouping (typing forwarded to ARC-OVR)
- *Brucella* sp. (typing forwarded to ARC-OVR)
- *Campylobacter* spp
- *Trichomonas* sp.

#### **2. Antimicrobial susceptibility testing**

Measuring the in vitro susceptibility of bacteria to antimicrobial drugs using the Kirby-Bauer method (agar disc diffusion technique).

#### **3. Fluorescent antibody test - Clostridia**

- *Clostridium novyi*
- *Clostridium chauvoei*
- *Clostridium sordellii*
- *Clostridium septicum*

#### **4. Blood, brain & impression smears**

### **B. Specimen collection, transportation and storage**

The following must be considered when submitting specimens:

- The appropriate specimens must be selected for the disease suspected.
- The specimens must be collected using an aseptic technique. This is imperative as any contamination can affect the outcome of the cultures considerably.
- Specimens should be collected from animals that have not been treated with antibiotics or antimicrobial drugs. The presence of such drugs can mask the cause of the disease.
- The stage of the disease is important. It is usually best to take specimens during the acute phase of the disease.



- Specimens should be taken soon after death and specimens should be as fresh as possible. Select from areas of the carcass which shows the least autolysis or decomposition.
- The time interval between collection of the specimens and their processing should be as short as possible. Where a delay cannot be avoided, specimens must be kept at 4°C (i.e. on ice) but not frozen. Specimens that can be frozen include milk for culture (not for somatic cell count) and lymph nodes for Brucella culture. Pathogens that are known to be sensitive to oxygen (e.g. anaerobes and microaerophiles such as Campylobacter) should reach the laboratory within a few (six) hours.
- Care must always be taken during the collection of specimens from animals that might be suffering from zoonotic disease (e.g. Brucella lymph node collections or when working with foetal material). Personal Protective Equipment (PPE) is essential in such circumstances.
- Specimen containers must be well sealed and clearly identified.
- A complete and detailed history must accompany each batch of specimens. This written history must be sent with the samples but in a separate (sealed) plastic envelope so that any specimen leakages do not soil the document.
- Swabs may be sent in a suitable transport medium to prevent desiccation of the swab. Ensure that there is sufficient material on the swab to limit complete drying out in transit.
- The use of 50% glycerol-saline is not recommended as it penetrates the specimen and this can result in the death of bacteria.
- When more than one organ is submitted, each organ must be packed separately in plastic screw-topped containers (preferably not plastic packets). Never place intestines in the same container as other organs. Each container must be labelled so as to indicate precisely its contents.
- A minimum of 5 slides per case must be submitted to the laboratory when requesting FAT Clostridia. Also, please ensure proper packaging of glass slides when transporting them to the laboratory to prevent breakages.
- The laboratory's current submission form must be comprehensively completed and submitted with samples.



### **C. Test Fees**

Please refer to the current test and fees list or contact the laboratory for fees on tests requested.

### **D. Section Contact Details**

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