GUIDELINES FOR SPECIMENS SUBMISSION

1. Only requests for laboratory services accompanied by the **Specimen Submission & Request** (SSR) form (OPR/FPV/BR085/SSR) shall be entertained.
2. The SSR must be filled by submitter with all required information as indicated in the form.
3. The SSR form must be endorsed (signatured) by the submitter. Cases submitted by UVH must be **endorsed by the clinician only** before processing of specimen can proceed. For laboratory customers, the SSR form shall be endorsed by the responsible person (e.g. researchers, Heads of Unit, Veterinarians).
4. For each request for laboratory services, the submitter shall submit the completed SSR form. A copy of the completed SSR form must be submitted to the designated laboratory together with the specimen. The laboratory shall provide the customer with a receipt of submission slip.
5. In cases where multiple laboratory services are required, the specimen submitted to each laboratory must be accompanied with one SSR form. For example if two laboratory services are required for a particular case, one form will be required for each of the two laboratories.

GUIDELINES FOR SUBMISSION OF SPECIMENS TO THE BACTERIOLOGY AND PUBLIC HEALTH LABORATORY

General submission guidelines

- Specimens should be as fresh as possible.
- For certain specimens such as clinical and pathological specimens, take from the edge of lesion, and to include adjacent and accompanying tissue, if possible.
- Ensure the collection of specimen is done in aseptic manner.
- Collect clinical specimens prior to antibiotic treatment.
- Submit generous portions of tissue or several millilitres of liquid.
- Maintain most specimens at refrigeration temperature (4°C) rather than frozen *en route* to laboratory.
- Submit specimens in clearly labeled, airtight, sterile containers.

Milk

- Collect milk (~10 ml) in sterile screw cap tubes or containers.
- Place samples in a cooler container upon sample collection and transport to the laboratory. Samples may be frozen without altering recoverability of pathogens.

Urine

- Collect by taking mid-stream voided urine (~ 10ml), by catheterisation or by cystocentesis.

Skin lesions (Pustules)

- Disinfect surface with alcohol, allow to dry. Preferably from the margin or edges of the lesion, either pierce with a sterile needle and absorb the contents onto a sterile swab or aspirate the contents and express either onto a sterile swab or into a sterile vial. Use a sterile swab to sample areas of superficial pyoderma.

Tissues and Organs

- Collect as soon as possible after death. Use a heated scalpel blade to sear the surface of the organ (e.g. lung or liver), slit open and insert a sterile cotton swab. Rotate the swab, remove and place into transport medium. Alternatively, submit whole tissues (approx. 4 cm^3) unfixed in sterile or clean containers.

Swabs

- Submit swab in transport medium (bacteria on dry swabs dessicate rapidly).
- If the specimen is submitted to the laboratory within 3 hours, dry swabs in sterile containers are acceptable.

Abscess Material

- Collect approximately 3 ml of pus along with scrapings from the abscess wall if practicable and submit in a sterile container. Material from recently formed abscesses is preferred.

Blood

- Collect approximately 5 ml of blood. Immediately inoculate into Tryptose Soy Broth (TSB) and transport to the laboratory. Please contact laboratory to obtain the TSB, if necessary.

Serum

- Collect approximately 5 ml of blood. Allow blood to clot at room temperature. Collect approximately 1 ml of serum into sterile storage tube and transport to the laboratory in a cooler container.

Faeces

- Collect fresh faeces from the rectum or cloaca using a sterile or clean container.

Environmental samples (e.g. : water, soil)

- Collect representative samples in appropriate sterile or clean containers.
- Send a minimum 100 ml of water sample or 100 g of soil sample.

Hair pluck / Skin scraping

- Send skin scraping on clean glass slide and cover using cover slip.
- Send hair pluck in suitable clean container

(This guideline partly follow the “Field Guide to Submission of Specimen” Department of Veterinary Services, Ministry of Agriculture, Malaysia, 2002)

GUIDELINES FOR SUBMISSION OF SPECIMENS TO THE BIOLOGIC LABORATORY

Collection of Samples

One of the important factors that determine the successful detection of pathogen-specific PCR product is the types of samples sent for analysis. Table 1 shows the types of tissue samples that are recommended for analysis by Real Time RT-PCR.

Table 1: Tissue samples recommended for identification of avian pathogens

No.	Pathogens	Samples
1.	Newcastle Disease Virus (NDV)	Lung, trachea, caecal tonsil, brain, kidney
2.	Infectious Bursa Disease Virus (IBDV)	Bursa
3.	Type A Avian Influenza Virus (AIV)	Lung, trachea, intestine, swab (trachea and cloacae)
4.	Chicken Anaemia Virus (CAV)	Liver, bone marrow, thymus, spleen
5.	Infectious Bronchitis Virus (IBV)	Lung, trachea, kidney, reproductive tract
6.	*Mycoplasma synoviae*	Swab of foot pad and foot joint
7.	*Mycoplasma gallisepticum*	Swab of cloanal cleft, trachea and air sac

Tissues and Organs

- Send specimens in sealable plastic bags.
- Collect specimen from clinically ill birds in a pool of 3 to 5 samples from different birds per plastic bag.
- Label the specimen clearly and send for testing in a cooler container.
- If the samples require storage, store at –20°C or below.
- Do not mix specimens from different organs in the same plastic bag, except for lung and trachea.
- Avoid contamination of the specimens.

Swabs

- Submit swab in suitable transport medium.
- If the specimens are submitted to the laboratory within 3 hours, dry swabs are acceptable.

(This guideline partly follows the “Field Guide to Submission of Specimen” Department of Veterinary Services, Ministry of Agriculture, Malaysia, 2002).

GUIDELINES FOR SUBMISSION OF SPECIMENS TO THE HAEMATOLOGY AND CLINICAL BIOCHEMISTRY LABORATORY

Blood

- Collect 3 – 10 ml (depending on animal species) in appropriate collecting tubes (e.g. heparin, EDTA, citrate or fluoride). Mix properly to avoid clotting.
- For delayed submission (not more than 24 hours), keep cool (2^0c – 8^0c).. DO NOT FREEZE.

Serum

- Collect 3 – 10 ml of blood (depending on animal species) in plain tube.
- Send whole tube to the laboratory or allow blood to clot at room temperature, separate serum and send.
- For delayed submission (not more than 24 hours), keep cool (2^0c – 8^0c).
- Serum can be kept frozen.

Urine

- Collect urine in a clean container by taking mid-stream voided urine (~ 1 - 10ml), by catheterization, spontaneous micturition, cystocentesis or by manual compression.

Cytology (e.g. : CSF, aspirated fluid)

- Collect in plain clean vial or syringe.
- For smear, send thin smear on glass slide.

Faeces

- Collect fresh faeces from the rectum or cloaca using a sterile or clean container.

Ensure all specimens are clearly labelled.

GUIDELINES FOR SUBMISSION OF SPECIMENS TO THE PARASITOLOGY LABORATORY

Faeces

- Collect approximately 10 g of fresh faeces in suitable clean containers.
- For delayed submission (not more than 24 hours), keep cool (2^0c – 8^0c). DO NOT FREEZE.

Blood

- Collect 1 - 3 ml blood in EDTA or heparin tubes.
- Mix properly to avoid clotting.
- For delayed submission (not more than 24 hours), keep cool (2^0c – 8^0c).. DO NOT FREEZE.
- Samples sent for Trypanosome identification should be fresh.

Organs

- Collect the entire GIT depending on species in appropriate container.
- Send other organ samples in clean, sealed plastic bags.
- For delayed submission (not more than 24 hours), keep cool (2^0c – 8^0c). . DO NOT FREEZE.
- Keep cool and send to the laboratory.
- For organ scraping, send on clean glass slide and cover using cover slip.

Ecto / Endo parasites

- Collect parasites in 70% alcohol in capped bottles.
- Live parasites are acceptable.

Smears (from blood, organ, feaces)

- Send thin smears on clean glass slide.

Skin scraping / Feather / Hair

- Send skin scraping on clean glass slide and cover using cover slip.
- Send feather and hair in suitable clean containers.

Environmental samples (e.g. : water, soil)

- Collect representative samples in appropriate sterile or clean containers.
- Send a minimum 100 ml of water sample or 100 g of soil sample.

GUIDELINE FOR SUBMISSION OF SPECIMEN TO SEROLOGY LABORATORY

Serum

- Collect approximately 5 - 10 ml of blood. Allow blood to clot at room temperature. Collect approximately 1 ml of serum into sterile storage tube and transport to the laboratory in a cooler container

GUIDELINE FOR SUBMISSION OF SPECIMEN TO HISTOPATHOLOGY LABORATORY

General submission guidelines.

- Specimen should be put in fixatives upon removal from the body or as soon after death as possible for at least 24 hours before sending to the laboratory.
- The choice of fixing agent should be determined by the purpose for which the tissue is to be stained or preserved.
- Tissue should be cut thin enough (not more 4mm in thickness) and should be immersed in at least ten times its volume of fixative, so that fixative will penetrate the tissue within the reasonably short time.
- The specimen should be clearly labeled.
- Submit specimens in suitable containers.

Bone and hard tissue

- Bone and other calcified material to send to the laboratory should be decalcified then cut into small pieces approximately 5mm before fixation.