

HISTOLOGY

The following information is to assist veterinary surgeons taking samples for submission to the Laboratory for histopathological processing and examination.

Post mortem samples should be trimmed to small but representative sizes and fixed immediately in an ample (at least 10x) volume of 10% formol saline before despatch in a sealed, leak-proof, wide-mouthed container. Notes of your own post-mortem examination findings should be sent to aid histopathological interpretations.

Skin biopsies are obtained by full-thickness wedge incision, or punch biopsy, and fixed in 10% formol saline. They may provide a diagnosis in cases of suspected neoplasia or chronic inflammatory conditions.

Liver biopsies are best obtained with a 6' 'Tru-cut' biopsy needle inserted between the 14th and 15th ribs, on the right side of the horse, along a straight line drawn between the point of the hip and the shoulder. Ultrasound echographic examinations are recommended to image the liver for diagnostic purposes and to guide the biopsy procedure. The tissue sample should be carefully removed from the needle and fixed in 10% formol saline. Liver biopsy is recommended where serum biochemical examinations have suggested hepatic pathology.

Rectal biopsies are best obtained with a mare endometrial biopsy forceps (Yeoman's basket-jawed), inserted an index finger's length through the anus. A rectal fold is removed laterally, on either side. One biopsy is fixed in 10% formol saline and the other placed into standard transport medium for bacteriological examinations.

Endometrial biopsies are obtained with special forceps (Kruise UK or Rocket of London Ltd.), via the vagina and cervix. Biopsies are carefully removed from the forceps and fixed immediately in Bouin's fluid (available on request). An endometrial biopsy submission form can be printed from the following link. [Endometrial Biopsy request form](#)

Testicular biopsies are best obtained by wedge resection under general anaesthesia. They should be fixed immediately in Bouin's fluid.

Aborted foeti may be sent, with appropriate warning, together with their placental membranes, sealed in secure plastic sacks, by courier to our laboratory for necropsy examinations. The elimination of Equine Herpesvirus 1 (Rhinopneumonitis) infection is of particular importance. Alternatively, please complete and send a detailed gross post mortem report in addition to suitable representative samples for bacteriological and histological examinations (liver, lung, kidney, spleen, thymus, adrenal gland, placenta). We have detailed protocols for the gross necropsy examination of aborted foeti and special request forms, with key questions, which we are pleased to send you, on request ([download printable version here](#) Aborted Foetus/Neonatal Foal Post Mortem request form). Mare owners who are members of the Thoroughbred Breeders' Association can obtain a financial contribution after submission of a copy of our report to the TBA office.

Fresh aborted foetal liver and lung tissue samples should either be sent for specific viral culture or should be deep frozen and stored pending the results of histological examinations. Now that Equine Viral Arteritis has been diagnosed in the UK, please give full details where mares are, or have been, systemically ill with pyrexia, conjunctivitis, ventral oedema and/or skin rashes, prior to abortion. Specific culture techniques are required for EVA and therefore we need to be asked for this test or we need key information with which to help you not to overlook this important differential diagnosis.
