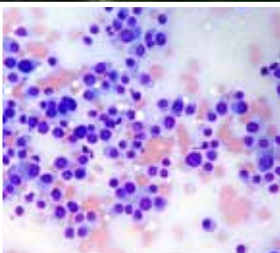




Animal **Health** Trust
Diagnostic Laboratory Services

Information & Price Guide 2016

Prices effective from 1st January 2016 All prices exclude VAT



T 01638 552993 F 01638 555643

E diagnostics@aht.org.uk

W www.ahtdiagnostics.co.uk



Animal Health Trust

Introduction

The mission of the Animal Health Trust (AHT), a veterinary charity, is fighting disease and injury in animals. As a not-for-profit organisation, funds raised through sample testing and disease analysis are invested directly back into our research work of developing new diagnostic tests, treatments and vaccines which ultimately benefit horses, dogs and cats across the world.

AHT Diagnostic Services strives to give accurate, repeatable and reliable results. By submitting samples you will also be assisting in the advancement of veterinary science. Thank you for your custom.

How to use this pricelist

Diagnostic Laboratory Services at the Animal Health Trust runs a wide range of tests for companion animals. We've tried to lay this pricelist out to help you, our clients, find the information you need.

General services can be found in the first section followed by species specific tests in the colour coded sections.

To submit samples, please complete a submission form (available from our website), and post to:

Diagnostic Laboratory Services
Animal Health Trust
Lanwades Park
Newmarket
Suffolk
CB8 7UU

If you cannot find the test you are looking for or have any queries, require submission forms or postage paid labels, please do not hesitate to contact Customer Services on **01638 552993** or email **diagnostics@aht.org.uk**. We will endeavour to deal with your enquiries as quickly as possible.

Our terms and conditions of business can be found on our website **www.ahtdiagnostics.co.uk**

Information correct at the time of print. Services offered, pricing etc. may be subject to change.



ISO 17025 gives you confidence in our test results

It is the function of AHT Diagnostic and Genetic Laboratory Services to meet customer requirements and expectations by providing accurate, repeatable, reliable results and advancing veterinary science within the appropriate statutory, regulatory and quality framework.

To ensure that we are providing the highest quality in laboratory work available we operate under a UKAS accredited quality management system.

This ensures we produce accurate and repeatable results by using effective, robust and documented test methods. All our tests are technically sound, performed by competent personnel and implemented using best laboratory practices. These are continually monitored to provide you with confidence in our results.

Our accreditation requires an annual review of our laboratory performance, procedures and methods by qualified external assessors and demonstrates that we have assured a third party that we have stringent processes and procedures in place.



4649

Key:

- ★ Denotes a test that is accredited to ISO 17025.
- (£) Denotes a special discounted price for a multiple test package.
- (R) Denotes a test that is referred to another laboratory.



Submissions/sample tips:

Please ensure that all samples are labelled with the animal and owner's name.

Please provide as much detail (species/breed/age/sex) and clinical information as possible on the submission forms - this can help us give you a better interpretation of results.

Samples may be used for anonymous surveillance unless indicated otherwise on the sample submission form.

Microbiology

We have developed various transport media that protect your samples and give us the best chance of making a diagnosis.

VTM: Viral Transport Medium – White top

Suitable for general virology investigations. Cannot be used for bacterial culture as it includes antibiotics.

FTM: Flu Transport Medium – Pink top

Optimised for influenza virus investigations. Cannot be used for bacterial culture as it includes antibiotics.

BTM: Bacterial Transport Medium – Green top

Suitable for bacteriology and other microbiological investigations.

Transport medium should be kept frozen where possible, but can be kept refrigerated for up to 1 week.

(Note: If you do not have transport medium please use sterile saline).

Swabs: Unless specified otherwise, for general bacteriology we recommend that swabs be submitted in Amies charcoal media.

- For sampling the nasopharynx of horses and ponies we have developed our own 50cm/20" and 40cm/16" nasopharyngeal swabs, which have been fully validated for our tests.
- Swabs can be provided **free of charge** if the samples are submitted for testing at the AHT.
- Nasopharyngeal swabs and transport media are available on request from Customer Services.

Guttural Pouch washes

Please submit the entire wash in sterile screw capped containers.

Equine Serology

- 7ml clotted blood or serum (2ml EDTA is acceptable as an alternative in most cases).
- (Note: Samples are generally paired with the last previous sample if taken within appropriate timescales. If the test requested differs from the original test a charge may be incurred).*

Histology

- Samples should be submitted immersed in 10% neutral buffered formalin in a 10:1 ratio of formalin to tissue in a non-glass specimen pot with a tight fitting screw-on lid.
- Pot size should be appropriate for fluid volume and to prevent tissue distortion.
- Organ samples from post mortem examinations should not exceed 10 mm in thickness in order to ensure adequate fixation.
- Up to 6 skin biopsies can be processed for the same histology price.
- Second opinions (from external laboratories): submission of the applicable wax block is preferred to stained tissue sections.

Cytology

- Up to six air-dried smears from a single site will be examined for the standard cytology price.
- For fluid evaluation a plain sample and a fixed (1 drop of buffered formalin per 1 ml of fluid) sample should be submitted.

Haematology

- Small animals: 2-5 ml of EDTA blood.
- Horses: 5-10 ml of EDTA blood.

Haematology can also be run on a lithium heparin sample although EDTA is preferred.

A free written interpretation/comment on the tests performed can be requested by ticking the appropriate box on the submission form and providing clinical history.

Biochemistry

- Small animals: 2-5 ml of whole clotted/heparin blood or 1-2 ml of serum/plasma.
- Horses: 5-10 ml of whole clotted/heparin blood or 2-5 ml of serum/plasma.

A free written interpretation/comment on the tests performed can be requested by ticking the appropriate box on the submission form and providing clinical history.

Coagulation testing

- Sample should be taken in a citrate tube, filled exactly to the line and mixed well. The plasma should then be immediately separated and placed into a plain tube with no gel or anticoagulant.

Post mortem examinations

- Post mortem submissions are received weekdays between 9am and 5pm. In some cases arrangements can be made outside working hours. Please contact the Pathology Department to arrange any post mortem examination.
- Foetuses and neonatal foals should be submitted with completed AHT foetus/foal submission forms (available on our website) with full contact details (Vets mobile number preferred) and a full clinical history.
- Our post mortem prices for all species include macroscopic/gross examination (including evaluation of the brain, but excluding spinal cord) and histology. In cases of abortions/neonatal deaths the price also includes EHV qPCR and aerobic bacterial culture.
- For group cremation of dogs and cats no additional fee is charged. Individual cremation can be arranged for an additional fee. The disposal of horses (after post mortem examinations) is included in the price for members of the Jockey Club Disposal Scheme. For non-scheme members an additional fee will be charged.

Tracheal wash (TW) and broncho alveolar lavage (BAL) in horses

- Mix the saline or phosphate buffered saline of the lavage well in the syringe and divide into two aliquots immediately, before it sediments out.
- A plain sterile tube is required for bacterial culture and a clean tube to which fixative can be added is recommended for cytology. It is recommended that BAL samples are fixed in 10% Neutral Buffered Formalin at a ratio of 1:1.
- Any nasopharyngeal swabbing of horses for virus detection should be carried out before the wash is obtained.

General Microbiology

Test Name	Sample Required	Price	Turnaround Time
Aerobic Culture & Identification	Swab / Fluid / Tissue	£18.00	Up to 3 days
Anaerobic Culture & Identification	Swab / Fluid / Tissue	£15.00	Up to 3 days
Aerobic & Anaerobic Culture & Identification	Swab / Fluid / Tissue	£26.50	Up to 3 days

Antibiotic Sensitivities: Not all cultures will yield growth, so it is inappropriate to incorporate the cost of antibiotic sensitivity testing to cases where it is not required. When appropriate, antibiotic sensitivities are performed at an additional **£7.00 per case** (regardless of number of isolates).

**Please state on your submission form if there is a specific antibiotic sensitivity required in the event of growth, or if antibiotic sensitivities are not required.*

Blood Culture	Blood Culture Bottle Set Available for £7.50	£40.00	Up to 10 days
Ear Culture Package (Includes aerobic and anaerobic culture, Gram stain and yeast culture)	Swab	£35.00	Gram Stain: Same working day Culture: Up to 3 days
Eye Culture Package (Includes aerobic and anaerobic culture, filamentous fungi culture)	Swab	£35.00	Bacterial Culture: Up to 3 days Fungal culture: Up to 7 days
Genital Site Culture Package (Includes aerobic and anaerobic culture and yeast culture)	Swab	£35.00	Up to 3 days
Respiratory Site Culture Package (Includes aerobic culture, filamentous fungi culture and, where appropriate, Nocardia, Actinomyces and/or anaerobic culture)	Swab / Fluid / Tissue	£25.00	Bacterial Culture: Up to 3 days Fungal Culture: Up to 7 days
Urine Culture	Urine in Sterile Container <i>Boric Acid containers should be filled to the fill line on the container</i>	£15.00	Up to 2 days
Gram Stain	Swab / Fluid / Tissue	£5.00	Same working day



Test Name	Sample Required	Price	Turnaround Time
Mycobacteria; culture and stain (R)	Swab / Tissue	£120.00	Up to 12 weeks
Mycobacteria Fast Track PCR, Culture and Stain (R)	Swab / Tissue	£160.00	PCR: Up to 10 working days Culture: Up to 12 weeks
Nocardia / Actinomyces Culture	Swab / Fluid / Tissue	£15.00	Up to 7 days
Filamentous Fungi Culture	Swab / Fluid / Tissue	£15.00	Up to 7 days
Yeast Culture	Swab / Fluid / Tissue	£15.00	Up to 7 days
Skin Microscopy (Microscopy for Parasitic Mites and Fungal Structures)	Skin Scrape / Hair Pluck	£15.00	Same working day
Dermatophyte Culture	Skin Scrape / Hair Pluck	£15.00	Up to 14 days
Dermatophyte Culture and Skin Microscopy	Skin Scrape / Hair Pluck	£22.00	Microscopy: Same working day Culture: Up to 14 days



General Faecal Analysis

Test Name	Sample Required	Price	Turnaround Time
Faecal Culture, Single Pathogen (Campylobacter, Salmonella OR Yersinia)	Swab / Faeces in screw top container	£10.00	Up to 3 working days
Faecal Culture Package (Campylobacter, Salmonella AND Yersinia)	Swab / Faeces in screw top container	£22.00	Up to 3 working days
Small Animal Faecal Profile (Faecal Culture Package, Worm Egg Count and Giardia / Cryptosporidium Antigen ELISA)	Faeces in screw top container	£45.00	Parasitology: Same working day Culture: Up to 3 working days
Clostridium Toxin Testing (<i>C. perfringens</i> and <i>C. difficile</i>) (R)	Faeces in screw top container	£65.00	Up to 4 working days
Clostridium Toxin Testing (<i>C. perfringens</i> and <i>C. difficile</i>) added to Culture Package / Profile (R)	Faeces in screw top container	£55.00	Up to 4 working days
Enteropathogenic <i>E. coli</i> (R)	Faeces in screw top container	£45.00	Up to 4 working days
Enteropathogenic <i>E. coli</i> added to Faecal Culture Package / Profile (R)	Faeces in screw top container	£35.00	Up to 4 working days
Faecal Worm Egg Count	Faeces in screw top container	£10.00	Same working day
Giardia and Cryptosporidium Antigen (ELISA)	Faeces in screw top container	£22.00	Same working day
Lungworm Larvae (Microscopy)	Faeces in screw top container	£12.00	2 working days
Occult Blood	Faeces in screw top container. Exclude red meat in diet for 5 days prior to sampling	£13.00	Same working day
Rotavirus Antigen (ELISA)	Faeces in screw top container	£15.00	Same working day
Salmonella Typing (R)	This is a mandatory test when Salmonella is isolated	£55.00	Up to 3 weeks

Please note: When sampling for faecal pathogens, many types are shed in faeces only intermittently. Therefore a 3 day pooled sample is preferable (where possible), to a single sample.



General Haematology

Test Name	Sample Required	Price	Turnaround Time
★ Basic haematology (no white blood cell differential count)	Whole blood in EDTA	£11.00	Same working day
★ Full haematology	Whole blood in EDTA	£17.00	Same working day
★ Anaemia profile (full haematology and reticulocyte count)	Whole blood in EDTA	£23.00	Same working day
★ Cell morphology only	Whole blood in EDTA	£15.50	Same working day
Coombs test	Whole blood in EDTA	£32.50	Same working day
Cross match (major and minor)	Whole blood in EDTA from donor and recipient	£35.00	Same working day

Haematology can also be run on a lithium heparin sample although EDTA is preferred. For other tests see the species specific sections.

General Biochemistry and Endocrinology

Test Name	Sample Required	Price	Turnaround Time
★ Single resting bile acids	Clotted blood / Serum or lithium heparin (fasting sample recommended)	£8.15	Same working day
★ Bile acid stimulation test	Clotted blood / Serum or lithium heparin, pre and post prandially	£14.25	Same working day
Cardiac troponin (R)	Clotted blood / Serum or lithium heparin	£25.00	2 working days
Cortisol (single) (R)	Clotted blood / Serum or lithium heparin	£25.00	2 working days
Cortisol stimulation or suppression test: 2X cortisol (R)	Clotted blood / Serum or lithium heparin	£42.00	2 working days
Electrophoresis, protein (R)	Clotted blood / Serum	£25.00	Up to 1 week
Fructosamine (R)	Clotted blood / Serum or lithium heparin	£20.00	2 working days
Insulin (R)	Serum	£40.00	4 working days
Phenobarbital (phenobarbitone) (R)	Serum	£27.00	4 working days
Bromide (potassium bromide) (R)	Clotted blood / Serum or lithium heparin	£36.00	4 working days

Starved samples are generally preferred for Biochemistry testing. For other tests and Biochemistry profiles see the species specific sections.



General Urine Analysis

Test Name	Sample Required	Price	Turnaround Time
Routine (including sediment examination)	Urine in plain tube	£16.50	Same working day
Sediment examination only	Urine in plain tube	£13.00	Same working day
Urine cortisol: creatinine ratio (R)	Urine in plain tube	£33.00	4 working days
Urine protein: creatinine ratio	Urine in plain tube	£17.00	Same working day
Urine electrophoresis (R)	Urine in plain tube	£37.00	Up to 1 week

General Coagulation

Sodium citrate samples should be filled exactly to the line and mixed well. Plasma should then be immediately separated and placed into a plain tube with no gel or anticoagulant.

Test Name	Sample Required	Price	Turnaround Time
Coagulation screen (PT, APTT)	Sodium citrate	£18.00	Same working day
Comprehensive clotting profile (PT, APTT, TCT, basic haematology including platelets)	Sodium citrate	£34.00	Same working day
Prothrombin time (PT)	Sodium citrate	£12.00	Same working day
Thrombin clot time (TCT)	Sodium citrate	£12.00	Same working day
Activated partial thromboplastin time (APTT)	Sodium citrate	£12.00	Same working day
Fibrinogen degradation products by D-dimer	Sodium citrate	£35.00	Same working day
Antithrombin III (AT3) (R)	Sodium citrate <i>chilled sample</i>	£38.00	Up to 1 week
APTT correction assay to aid diagnosis of possible factor deficiency (Canine only) (R)	Sodium citrate <i>chilled sample</i>	£30.00	2 working days
Factor assay (VIII, IX) (R)	Sodium citrate <i>chilled sample</i>	£60.00 per factor	Up to 2 weeks
Factor assay (VII, X, XI, XII) (R)	Sodium citrate <i>chilled sample</i>	£85.00 per factor	Up to 2 weeks
von Willebrand's factor antigen (VWF) ELISA (R)	Sodium citrate <i>chilled sample</i>	£65.00	2 weekly on Tuesdays, result following Friday afternoon



General Cytology

Test Name	Sample Required	Price	Turnaround Time
Cytology only - one site (up to 6 slides)	Air dried smears	£27.00	Same working day
Cytology only - each additional site (up to 6 slides/site)	Air dried smears	£12.00	Same working day
Fluid (one) including cell counts, total protein and cytology	Plain sample and sample fixed with 1-2 drops of formalin	£33.00	Same working day
Bone marrow aspirate	Air dried smears	£36.00	Same working day
Bone marrow core	Formalin fixed tissue	£41.00	2 working days
Bone marrow aspirate and core together	Air dried smears and formalin fixed core (core in separate sealed bag to slides)	£53.00	2 working days
CSF including including cell counts, microprotein and cytology	Half in plain tube; half with 1 drop of buffered formalin (preferred for cell morphology)	£33.00	Same working day
Tracheal wash or BAL	Plain sample and sample fixed with 1-2 drops of formalin	£25.00	Same working day



General Pathology (Histology)

Note: ISO 17025 covers slide preparation and staining, not the final opinion.

Test Name	Sample Required	Price	Turnaround Time
★ Biopsies (up to 2 sites - include small bone biopsies)	Formalin fixed tissue	£34.00	Up to 2 working days
★ Biopsies (3 to 5 sites)	Formalin fixed tissue	£44.00	Up to 2 working days
★ Biopsies (5 to 8 sites)	Formalin fixed tissue	£50.00	Up to 2 working days
★ Skin biopsies (up to 6 biopsies - Gram and PAS stain included where appropriate)	Formalin fixed tissue	£48.00	Up to 2 working days
★ Large specimens or specimens that require pathologist dissection and/or margins (e.g. mammary chain, small jaws, amputated digits)	Formalin fixed tissue	£60.00	Preliminary result within 2 working days
★ Post mortem samples (up to 7)	Formalin fixed tissue	£60.00	Up to 2 working days
★ Rapid processing for suitable samples (need to be received by 10:30am for same day result)	Formalin fixed tissue	additional £10.00	< 24 hours
Large jaws and large bones	Formalin fixed tissue	£66.50	Preliminary result within 2 working days
Second opinion	Preferred: wax block (stained slide also acceptable)	£28.50	Same working day
★ Tissue processing and preparation of stained slide without interpretation	Formalin fixed tissue	£17.00	Next working day
★ Duplicate stained slide	Wax block	£8.50	Up to 2 working days

Special histochemical stains not specifically recommended by the pathologist may be subjected to an extra charge. Please contact the lab to request.

Please note that turnaround times are for fully fixed samples. Un-fixed or partially fixed specimens may require additional time.

General Immunohistochemistry

Antibodies available in the lab are summarised based on their major applications (panels). Consultation with a pathologist is available which will assist in choosing the appropriate number and type of markers (antibodies) for each case. We are continually updating our range of antibodies. Please contact us to discuss your specific requirements.

Applications (Panels)	Antibodies	Price (Full Panel)	Turnaround Time
Standard cell differentiation tumour markers	cytokeratin, vimentin	£52.50	Up to 1 week
Round cell tumour markers	CD3, CD20, CD18, MUM-1, Mast cell tryptase, c-KIT (CD117), MAC-387	£158.50	Up to 1 week
Lymphoma markers	CD3, CD20	£52.50	Up to 1 week
Melanoma markers	melan-A, S-100	£52.50	Up to 1 week
Spindle cell tumour markers	vimentin, osteocalcin, desmin, smooth muscle actin, S-100, c-KIT/ CD117 (gastrointestinal stromal tumours)	£106.50	Up to 1 week
Vascular endothelial tumour markers	Von Willebrand factor / Factor VIII related antigen, CD31	£52.50	Up to 1 week
Neuronal markers	GFAP, synaptophysin, NSE, S-100	£89.50	Up to 1 week
Neuroendocrine tumour markers	chromogranin, synaptophysin, NSE	£71.50	Up to 1 week
Proliferative markers (e.g. melanomas, cutaneous and subcutaneous mast cell tumours)	Ki-67	£59.00	Up to 1 week
	MCM7	£35.00	
	Ki-67 + MCM7	£75.00	
Equine herpesvirus marker	EHV	£30.50	Up to 1 week

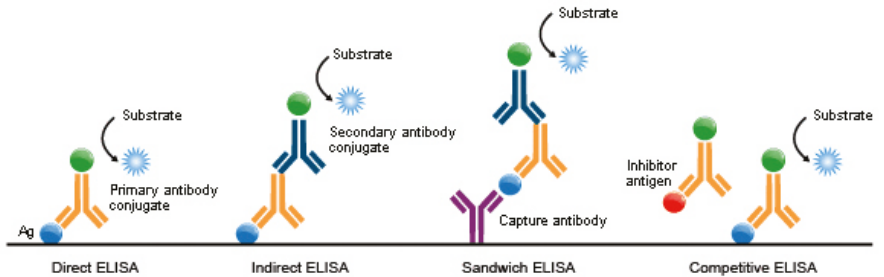


What is an ELISA?

ELISA stands for Enzyme Linked Immunosorbent Assay, and is a plate based assay that can be used to detect target analytes in a sample, e.g. proteins, antibodies or hormones.

The methodology utilises highly specific antigen/antibody complex formation, which depending on the target and assay type can involve several rounds of complex formation, before final detection using enzyme/substrate reaction.

There are several variations to the Direct ELISA, but in general either an antibody or antigen is immobilised on a micro-plate surface, allowing easy separation of bound (target analyte) and unbound material (non-specific matter). Once bound and through a series of washes, all non-specific material from the sample can be removed leaving the target available for detection through a form of tagged antibody.



By use of an appropriate ELISA, many analytes can be determined either qualitatively or quantitatively, and require minimum pre-treatment of the crude sample prior to use. ELISA's provide a robust, reliable, sensitive and specific rapid test methodology.



Strangles *Streptococcus equi subsp. equi* (*S. equi*)

Strangles, caused by *S. equi*, is the most frequently diagnosed infectious disease of horses worldwide and is responsible for significant welfare concerns and economic losses to the equine industry.

The AHT bacteriology research group investigate how *S. equi* causes disease and how it may be effectively diagnosed and even prevented through vaccination. By applying this research, Diagnostic Laboratory Services are able to offer the best possible tests to identify active infections by detecting *S. equi* (qPCR) and also immune response after exposure to it (ELISA).

One of the key ways in which Strangles persists is its ability to form the carrier state within the guttural pouches of horses after lymph node abscessation and rupture. Over time, the purulent material in the guttural pouches of some horses becomes inspissated, enabling Strangles to persist for months or even years in the absence of clinical signs. *S. equi* is shed from persistently infected carrier horses periodically, allowing transmission to susceptible individuals and resulting in new outbreaks of disease.

Using a combination of ELISA serology and qPCR detection, Strangles outbreaks can be controlled and eliminated from groups of horses. The AHT epidemiology team are able to offer advice on all aspects of biosecurity and disease control. For more information please visit our website.

Equine Strangles Tests

! 20% discount for 10 or more samples sent in at the same time for the same test.

Test Name	Sample Required	Price	Turnaround Time
★ Strangles Profile (culture and qPCR)	Nasopharyngeal swab / Guttural Pouch wash / Chondroids / Lymph node aspirate / Pus	£36.00	3 working days
★ Strangles antibody ELISA	Clotted blood / Serum	£26.00	Same working day
★ Strangles qPCR	Nasopharyngeal swab / Guttural Pouch wash / Chondroids / Lymph node aspirate / Pus	£26.00	Same working day



Equine Pre-Breeding Screens



20% discount for 10 or more samples sent in at the same time for the same test.
Excludes (£) packages.

Test Name	Sample Required	Price	Turnaround Time
(£) EVA, EIA serology and CEM	Clotted blood / Serum and CEM swab	£40.00 (additional CEM sites £15.00)	EVA/EIA: Up to 2 days CEM: 3 days
EVA serology and CEM	Clotted blood / Serum and CEM swab	£35.00 (additional CEM sites £15.00)	EVA: Same working day CEM: 3 days
★CEM: qPCR for <i>Taylorella equigenitalis</i> and <i>Taylorella asinigenitalis</i> , aerobic culture for <i>Pseudomonas aeruginosa</i> and <i>Klebsiella pneumoniae</i>	CEM Swab (See HBLB codes of practice)	£26.00 (additional sites £15.00)	3 days
(£) EIA, EVA and strangles serology and CEM	Clotted blood / Serum and CEM swab	£60.00 (additional CEM sites £15.00)	Serology: Up to 2 days CEM: 3 days
EVA and EIA serology	Clotted blood / Serum	£25.00	Up to 2 days

Contagious Equine Metritis (CEM)



The Animal Health Trust works closely with the equine industry to support breeders and veterinary surgeons prevent and control disease in all breeds of horse and pony. We are approved by the Horserace Betting Levy Board (HBLB) for CEM testing and Certification. All our CEM tests are both UKAS accredited and under a VETQAS proficiency scheme. For further details refer to the HBLB (www.codes.hblb.org.uk).



Equine herpesvirus (EHV) clearance for equine abortions and neonatal foal deaths

Equine herpesvirus (EHV-1) can be a significant cause of multiple abortion and neonatal foal death among groups of mares. It is important for effective stud management that abortions are investigated for EHV and appropriate actions taken in light of the results. EHV clearance tests can be carried out on selected tissues following gross post mortem examination conducted elsewhere (Option 1) or as part of a complete post mortem investigation carried out by AHT pathologists (Option 2). Post mortem examinations, either in field or at the AHT, allow for evaluation for other causes of abortion, however in some instances the simple exclusion of EHV may be desired and appropriate fresh tissues may be submitted for PCR testing only (Option 3).

OPTION 1: POSTAL SAMPLES

Appropriate tissues to collect during preliminary gross post mortem examination of the foetus/foal are: liver, lung, spleen, adrenal gland and thymus. Pooled fresh tissue in transport medium (or otherwise in a labelled sterile container) should be submitted for qPCR. Similar tissues fixed in 10% neutral buffered formalin (NBF) should be submitted for histopathological examinations. A further set of samples clearly labelled from the chorion (cervical star, body and both horns) should also be submitted for qPCR and for histopathological examination.

The usual turnaround time for both tests (histopathology and qPCR) is up to 48 hours for samples received Monday to Thursday, and up to 72 hours for samples received at other times. Where the two tests do not provide consistent results (or only fixed tissue is received) then immunohistochemical staining of tissues will be performed without additional charge.

OPTION 2: POST MORTEM EXAMINATION CONDUCTED AT AHT

Post mortem examination considers EHV, as well as other potential causes of abortion or neonatal death. The placenta should always be submitted with the foetus wherever possible. The cost of the post mortem examination includes laboratory and disposal charges. Turnaround time is as in Option 1 above.

All EHV diagnoses are copied to the AHT epidemiology team, who are able to offer advice on all aspects of biosecurity and disease control. Further information can be found in the HBLB Code of Practice on Equine herpesvirus-1, which is available on their website at <http://codes.hblb.org.uk/index.php/page/32>

OPTION 3: EHV 1&4 qPCR TEST ONLY

Equine EHV Tests

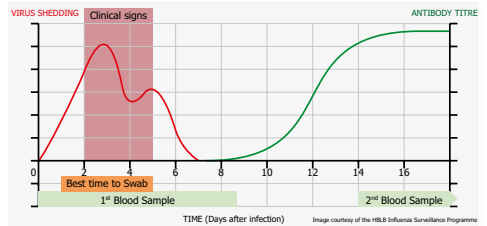
Test Name	Sample Required	Price	Turnaround Time
Full post mortem of an equine foetus or neonate (including EHV clearance)	Fresh / Cooled body and placenta	£200.00	Received before 11.00am Same working day
EHV Clearance on equine foetus or neonate (Tissues collected by technician, Histology, qPCR plus Bacteriology)	Fresh / Cooled body and placenta	£120.00	Received before 11.00am Same working day
EHV Clearance on equine foetus or neonate (Tissues collected by technician, Histology and qPCR)	Fresh / Cooled body and placenta	£100.00	Received before 11.00am Same working day
Postal EHV Clearance (up to 7 tissues, Histology and qPCR)	Fresh and formalin fixed tissue	£80.00	Received before 11.00am Same working day
★ EHV 1&4 qPCR only (Tissues collected by technician)	Fresh / Cooled body and placenta	£45.00	Received before 11.30am Same working day
★ EHV 1&4 qPCR only (On Postal tissues)	Fresh tissue	£26.00	Received before 12.30pm Same working day



Equine Influenza

The AHT is an OIE Reference Laboratory for equine influenza, which is a major cause of respiratory disease in horse populations around the world.

The AHT virology research group investigate how equine influenza virus causes disease and how the virus evolves through studying outbreaks and viral isolates from around the world. Confirming a positive diagnosis for equine influenza is necessary in order to best manage the clinical situation so that infectious transmission might be minimised and where possible steps taken to implement timely booster vaccination initiatives.



Equine influenza can be diagnosed using either qPCR (nasopharyngeal swabs) to detect the presence of the virus or serology (clotted blood / serum) to detect rising antibody levels following infection.

To learn more about equine influenza research, clinical signs and more detail on which samples are required please visit the website www.equiflunet.org.uk

Equine Influenza Tests



Free testing for equine influenza is available for UK veterinary practices, sponsored by the HBLB. Please email us at equiflunet@aht.org.uk to register.



20% discount for 10 or more samples sent in at the same time for the same test.

Test Name	Sample Required	Price	Turnaround Time
★ Influenza virus qPCR	Nasopharyngeal swab in FTM	£26.00	Same working day
Influenza virus antibodies by HI	Clotted blood / Serum	£26.00	Up to 4 working days (set up on Mondays and Thursdays)

Equine Microbiology



For General Microbiology see the General section - page 6.

Equine Specific Bacteriology and Virology



20% discount for 10 or more samples sent in at the same time for the same test.

Test Name	Sample Required	Price	Turnaround Time
★ Strangles culture (limited culture for <i>S. equi</i> , <i>S. zooepidemicus</i> and <i>S. equisimilis</i>)	Nasopharyngeal swab / Guttural Pouch wash / Chondroids / Lymph node aspirate / Pus	£16.50	3 working days
★ Strangles Profile (culture and qPCR)	Nasopharyngeal swab / Guttural Pouch wash / Chondroids / Lymph node aspirate / Pus	£36.00	3 working days
Rotavirus antigen ELISA	Faeces in a screw top container	£15.00	Same working day
Equine Faecal Profile: (Campylobacter, Salmonella, Yersinia and Worm Egg Count)	Faeces in a screw top container	£25.00	Up to 10 days
Virus isolation in tissue culture; for the detection of Herpesvirus, Picornavirus, Adenovirus and Arteritis Virus	Nasopharyngeal swab / 30ml Heparinised blood / Scabs or faeces in a screw top container	£42.00	Up to 2 weeks

Equine Specific Serology



20% discount for 10 or more samples sent in at the same time for the same test.
Excludes (£) packages.

Test Name	Sample Required	Price	Turnaround Time
(£) Equine General Respiratory Serological Screen: (EHV 1&4 CF, Rhinitis A&B CF, Strangles ELISA and Influenza and Adenovirus antibodies HI).	Clotted blood / Serum	£70	Up to 4 working days (set up on Mondays and Thursdays)
★ Strangles Antibody ELISA	Clotted blood / Serum	£26.00	Same working day
★ Piropalmsis ELISA (<i>Babesia caballi</i> and <i>Theileria equi</i>)	Clotted blood / Serum	£26.00	Same working day
EHV 1&4 CF	Clotted blood / Serum / CSF	£26.00	Up to 4 working days (set up on Mondays and Thursdays)

Table continued overleaf >

Test Name	Sample Required	Price	Turnaround Time
Rhinitis A&B CF	Clotted blood / Serum	£26.00	Up to 4 working days (set up on Mondays and Thursdays)
Influenza and Adenovirus antibodies by HI	Clotted blood / Serum	£26.00	Up to 4 working days (set up on Mondays and Thursdays)
Influenza SRH (for export purposes)	Clotted blood / Serum	£40.00	Up to 4 working days
EHV 3 VN	Clotted blood / Serum	£42.00	Up to 1 week
EVA ELISA (or VN for stallions or vaccinated/positive horses)	Clotted blood / Serum	£15.00	Same working day (up to 1 week if VN required)
EIA ELISA or Coggins	Clotted blood / Serum	£15.00	Up to 2 days
<i>Lawsonia intracellularis</i> IPMA (R)	Clotted blood / Serum	£22.50	Up to 1 week
<i>Rhodococcus equi</i> vapA plasmid ELISA (R)	Clotted blood / Serum	£30.00	Up to 1 week

Equine Specific PCR



20% discount for 10 or more samples sent in at the same time for the same test. Excludes (£) packages.

Test Name	Sample Required	Price	Turnaround Time
(£) Equine Respiratory PCR panel: Includes Strangles, Influenza, EHV 1&4 and <i>S. zooepidemicus</i>	Nasopharyngeal swab	£75.00	Same working day
★ Strangles qPCR	Nasopharyngeal swab / Guttural Pouch wash / Chondroids / Lymph node aspirate / Pus	£26.00	Same working day
<i>S. zooepidemicus</i> qPCR	Nasopharyngeal swab	£26.00	Same working day
★ Influenza qPCR	Nasopharyngeal swab	£26.00	Same working day
★ EHV 1&4 qPCR	Nasopharyngeal swab in VTM / Fresh tissue	£26.00	Same working day
EHV 2&5 PCR	Ocular swab / Nasopharyngeal swab / Fresh Tissue	£30.00	3 working days
<i>Mycoplasma felis</i> PCR (R)	Tracheal / Nasal wash	£26.00	3 working days
<i>Bordetella bronchiseptica</i> PCR	Swab / Tracheal / Nasal wash	£26.00	3 working days

Test Name	Sample Required	Price	Turnaround Time
★ Klebsiella capsule typing PCR (mandatory if isolated from a CEM swab)	<i>Klebsiella pneumoniae</i> Isolate	£35.00	3 working days
EVA qPCR	Fresh tissue in VTM/Semen/ Nasopharyngeal Swab	£35.00	2 working days
<i>Lawsonia intracellularis</i> PCR (R)	Faeces in a screw top container	£35.00	3 working days
<i>Rhodococcus equi</i> PCR (R)	Nasopharyngeal swab in BTM	£30.00	3 working Days

Equine Specific Pathology and Clinical Pathology



For General Pathology / Clinical Pathology see the General section - page 9.

Equine Specific Haematology and Biochemistry Profiles

Individual tests may be requested, please contact the lab for a price.

Profile Name	Sample Required	Profile Price	Turnaround Time
★ Routine profile (AP, GGT, total bilirubin, AST, CK, urea, creatinine, total protein, albumin, globulin, and A/G ratio)	Serum	£21.25	Same working day
★ Routine profile (with haematology)	Whole blood EDTA and serum	£38.25	Same working day
★ Comprehensive profile (AP, GGT, bile acids, total bilirubin, triglyceride, AST, CK, urea, creatinine, sodium, potassium, chloride, total calcium, phosphate, IAP, total protein, albumin, globulin, A/G ratio, and glucose - if oxalate tube)	Serum (oxalate tube for glucose)	£38.00	Same working day
★ Comprehensive profile (with haematology)	Whole blood EDTA and serum (oxalate tube for glucose)	£55.00	Same working day

Table continued overleaf >

Profile Name	Sample Required	Profile Price	Turnaround Time
★ Liver profile (haematology, AP, GGT, total bilirubin, bile acids, total protein, albumin, globulin, A/G ratio)	Whole blood EDTA and serum	£32.50	Same working day
★ Renal profile (haematology, urea, creatinine, phosphate, total protein, albumin, globulin, total calcium)	Whole blood EDTA and serum	£24.00	Same working day
★ Equine weight loss profile (haematology, AP, GGT, bile acids, total protein, albumin, globulin, IAP, creatinine, urea)	Whole blood EDTA and serum	£32.50	Same working day
★ Equine muscle profile (haematology, CK, AST)	Whole blood EDTA and serum	£22.00	Same working day
Creatinine clearance profile (Creatinine clearance ratios for 6 electrolytes, urine pH, plus serum AST, CK and urea)	Serum and urine (in plain tube)	£61.00	2 working days

Equine Specific Biochemistry and Endocrinology Tests

Test Name	Sample Required	Price	Turnaround Time
Equine pregnancy: PMSG (45 to 100 days gestation) (R)	Plain clotted blood (serum) or lithium heparin	£32.00	Up to 1 week
Equine pregnancy: Oestrogen sulphate > 100 days gestation (R)	Plain clotted blood (serum) or lithium heparin	£32.00	Up to 1 week
Fibrinogen - included in equine routine haematology	EDTA plasma	£12.00	Same working day
IgG - including total protein and albumin	Plain clotted blood (serum) or lithium heparin	£27.00	Same working day
Intestinal alkaline phosphatase	Plain clotted blood (serum) or lithium heparin	£12.50	Same working day

EHV Clearance Field Samples

Submission material: Liver / Lung / Thymus / Spleen / Adrenal Gland / Kidney / Chorion.
Fresh and fixed samples allow both PCR and histological evaluation.

Convenient wallet sized reminder cards for Field Samples are available from Customer Service.

Equine Post Mortem Examinations

Test Name	Sample Required	Price	Turnaround Time
Full post mortem of an equine foetus or neonate including EHV clearance (and bacteriology if appropriate)	Fresh / Cooled body and placenta	£200.00	Final report within 1-2 working days
Equine foetuses or neonate for EHV clearance only: histology and PCR (tissue collection by technician, no preliminary report issued)	Fresh / Cooled body and placenta	£120.00	Final report within 1-2 working days
Post mortem of an equine foal up to 2 weeks old	Fresh / Cooled body	£315.00	Preliminary report within 2 working days. Final report within 10 working days
Post mortem of an equine between 2 weeks and 6 months old	Fresh / Cooled body	£420.00	Preliminary report within 2 working days. Final report within 10 working days
Post mortem of an equine adult	Fresh / Cooled body	£580.00	Preliminary report within 2 working days. Final report within 10 working days
Post mortem of a neurological case (equine adult) including evaluation of the spinal cord	Fresh / Cooled body	Additional £100.00 to the standard price	Preliminary report within 2 working days. Final report within 10 working days

For legal cases photographic material is available at an extra charge of £35.00.

! The disposal of the body is included in the post mortem price for members of the Jockey Club Disposal Scheme. An additional fee will be invoiced for disposal for non scheme members.

TBA Post Mortem Rebate Scheme

Thoroughbred Breeders' Association (TBA) members can claim up to £100.00 rebate for post mortem examinations performed on foetuses/neonatal foals.

Please contact the TBA for details (01638 661321 and <http://www.thetba.co.uk/membership-services/veterinary/>)





Canine Respiratory Disease

AHT research has demonstrated that among the pathogens implicated in some outbreaks of canine respiratory disease is the bacterium *Streptococcus zooepidemicus*, which may be especially associated with acute, severe, fatal episodes of haemorrhagic pneumonia.

Severe outbreaks of respiratory disease due to *S. zooepidemicus* infection have been seen in dogs in rehoming shelters as well as among packs of foxhounds and kennels of greyhounds. In addition, the AHT has also retrospectively diagnosed equine influenza virus as the cause of severe acute pneumonia among foxhounds following close contact with infected horses.

Diagnostic Laboratory Services provide a panel of PCR tests for detecting bacterial and viral respiratory pathogens of the dog including both *S. zooepidemicus* and influenza virus as well as the other better known causes of 'kennel cough'.

The AHT Canine Respiratory Pathogen PCR panel applied to a few acute cases is the logical first step in any veterinary outbreak investigation as it should help identify the most likely candidate pathogens and allow subsequent testing and treatment to be more targeted and efficient.

AHT researchers benefit greatly through close collaboration with AHT DLS which allows them access to diagnostic samples and facilitates better understanding, control and ultimately prevention of these significant disease outbreaks.

In this way samples submitted to the AHT DLS provide the opportunity to enhance the health and welfare of animals far beyond the animal and group from which they have been taken.

Canine Specific Respiratory Panel



Refer to Canine PCR section - page 25-26 for individual tests.

Test Name	Sample Required	Price	Turnaround Time
(£) <i>Bordetella bronchiseptica</i> , Canine adenovirus, Canine Respiratory Coronavirus, Para-influenza, Influenza and <i>Streptococcus zooepidemicus</i>	Swab	£120.00	Up to 3 working days

Canine Specific Microbiology



For General Microbiology see the General section - page 6.

Canine Specific Bacteriology and Virology

Test Name	Sample Required	Price	Turnaround Time
Canine Faecal Profile with Parvovirus (Campylobacter, Salmonella, Yersinia, Worm egg count, Giardia / Cryptosporidium Antigen ELISA and Canine Parvovirus Antigen ELISA)	Faeces in a screw top container	£60.00	Up to 3 days
Canine Parvovirus Antigen (ELISA)	Faeces in a screw top container	£22.00	Same working day

Canine Specific Serology

Test Name	Sample Required	Price	Turnaround Time
<i>Neospora caninum</i> antibody by IFA (R)	Clotted blood / Serum	£30.00	Up to 10 days
Toxoplasma IgG and IgM by IFA (R)	Clotted blood / Serum	£30.00	Up to 10 days
Sarcoptes antibody ELISA (R)	Clotted blood / Serum	£34.00	Up to 1 week

Canine Specific PCR



20% discount for 10 or more samples sent in at the same time for the same test.

Test Name	Sample Required	Price	Turnaround Time
<i>Bordetella bronchiseptica</i> PCR	Swab	£26.00	3 working days
Canine Adenovirus (CAV1 and CAV2) PCR	Swab	£26.00	3 working days
Canine Respiratory Coronavirus (CRCV) PCR	Swab	£26.00	3 working days
Influenza qPCR	Swab	£26.00	Same working day
Para-influenza (PiV) PCR	Swab	£26.00	3 working days

Table continued overleaf >



Test Name	Sample Required	Price	Turnaround Time
Parvovirus (CPV) PCR	Faeces / Tissues	£26.00	3 working days
<i>Streptococcus zooepidemicus</i> qPCR	Swab	£26.00	Same working day
Distemper (CDV) PCR (R)	Swab	£35.00	Up to 1 week
<i>Chlamydomphilia</i> PCR (R)	Dry swab	£35.00	Up to 1 week

Canine Specific Pathology and Clinical Pathology



For General Pathology and Clinical Pathology see the General section - page 9.

Individual tests may be requested, please contact the lab for a price.

Profile Name	Sample Required	Profile Price	Turnaround Time
★ Routine profile (AP, ALT, total bilirubin, urea, creatinine, total protein, albumin, globulin, glucose - if oxalate provided)	Serum (oxalate tube for glucose)	£21.25	Same working day
★ Routine profile (with haematology)	Whole blood EDTA and serum	£38.25	Same working day
★ Comprehensive profile (AP, ALT, total bilirubin, bile acids, urea, creatinine, CK, total protein, albumin, globulin, cholesterol, sodium, potassium, chloride, total calcium, phosphate, triglyceride, and glucose - if oxalate tube provided)	Serum (oxalate tube for glucose)	£38.00	Same working day
★ Comprehensive profile (with haematology)	Whole blood EDTA and serum (oxalate tube for glucose)	£55.00	Same working day
★ Liver profile (haematology, AP, ALT, GGT, bile acids, total bilirubin, cholesterol, glucose, urea, total protein, albumin, globulin, A/G ratio)	Whole blood EDTA and serum	£32.50	Same working day
★ Renal profile (haematology, urea, creatinine, sodium, potassium, chloride, phosphate, total calcium, cholesterol, total protein, albumin, globulin, A/G ratio)	Whole blood EDTA and serum	£24.00	Same working day

Canine Specific Biochemistry and Endocrinology Tests



Test Name	Sample Required	Price	Turnaround Time
T4 (R)	Clotted blood / Serum	£22.00	2 working days
T4 and TSH (R)	Clotted blood / Serum	£60.00	4 working days
T4, TSH and free T4 (R)	Clotted blood / Serum	£75.00	4 working days
Free T4 (R)	Clotted blood / Serum	£39.00	4 working days
TLI, Vit B12/folate (R)	Clotted blood / Serum	£55.00	Up to 1 week
Quantitative canine PLI (R)	Clotted blood / Serum	£60.00	8 working days

For a complete lists of all tests available, please contact the laboratory.

Canine Specific Haematology Tests

Test Name	Sample Required	Price	Turnaround Time
Canine blood grouping	Whole blood EDTA	£35.00	Same working day

Canine Specific Post Mortem Examinations

Test Name	Sample Required	Price	Turnaround Time
Post mortem of a newborn dog up to 2 weeks old	Fresh / Cooled body	£105.00	Preliminary report within 2 working days. Final report within 10 working days
Post mortem of a dog up to 10kg	Fresh / Cooled body	£160.00	Preliminary report within 2 working days. Final report within 10 working days

Table continued overleaf >

Test Name	Sample Required	Price	Turnaround Time
Post mortem of a dog from 10-35kg	Fresh / Cooled body	£225.00	Preliminary report within 2 working days. Final report within 10 working days
Post mortem of a dog over 35 kg	Fresh / Cooled body	£265.00	Preliminary report within 2 working days. Final report within 10 working days
Post mortem of a neurological case including evaluation of the spinal cord	Fresh / Cooled body	Additional £38.00 to the appropriate standard PM price (see above)	Final report within 10 working days

For legal cases photographic material is available at an extra charge of £35.00.

! Group cremation is included in the Post Mortem Examination fee. We regret that we can not return remains to the owners after post mortem. No additional charges are applied for group cremation. However, individual cremation can be arranged. The ashes, if requested, and the invoice for private cremation will be sent to the referring vet.

DNA Testing For Canine Hereditary Disorders

Canine genetics has been an important focus at the Animal Health Trust for more than twenty years. The AHT was one of the first laboratories in the world to offer DNA testing to dog owners, our first test (for progressive retinal atrophy in Irish Setters) was introduced in 1995. Many of the DNA tests that we offer are based on our own research to identify mutations causing genetic diseases.

Genetic disorders are an important health problem for pedigree dogs. Over 600 traits and disorders are currently listed on the OMIA website. Our DNA testing service is competitively priced and results are returned within 10 working days.

We work closely with dog owners to improve the health of future generations of dogs. Every DNA sample sent to us will further improve our understanding of canine hereditary diseases and will in turn benefit hundreds more animals.

For a full list of DNA tests available at the AHT please visit www.aht.org.uk/dnatesting



Feline Specific Microbiology



For General Microbiology see the General section - page 6.

Feline Specific Bacteriology and Virology

Test Name	Sample Required	Price	Turnaround Time
Feline Faecal Profile: (Faecal Culture Package, Worm Egg Count and Giardia / Cryptosporidium Antigen ELISA)	Faeces in a screw top container	£45.00	Up to 3 days

Feline Specific Serology

Test Name	Sample Required	Price	Turnaround Time
Neospora caninum antibody by IFA (R)	Clotted blood / Serum	£30.00	Up to 1 week
Toxoplasma IgG and IgM by IFA (R)	Clotted blood / Serum	£30.00	Up to 1 week
Feline Coronavirus (FIP titre) by ELISA (R)	Clotted blood / Serum	£27.00	2 working days
FeLV and FIV by ELISA (R)	Clotted blood / Serum	£37.00	2 working days

Feline Specific PCR

Test Name	Sample Required	Price	Turnaround Time
<i>Bordetella bronchiseptica</i> PCR	Swab	£26.00	3 working days
Feline Panleukopenia (FPV)	Faeces	£26.00	3 working days
Feline Herpesvirus PCR (R)	Swab	£35.00	Up to 1 week
Feline Calicivirus PCR (R)	Swab	£35.00	Up to 1 week
Chlamydia PCR (R)	Dry swab	£35.00	Up to 1 week

Feline Specific Haematology and Biochemistry Profiles



For General Pathology and Clinical Pathology see the General section - page 9.

Individual tests may be requested, please contact the lab for a price.

Profile Name	Sample Required	Profile Price	Turnaround Time
★ Routine profile (AP, ALT, total bilirubin, urea, creatinine, total protein, albumin, globulin, glucose - if oxalate provided)	Serum (oxalate tube for glucose)	£21.25	Same working day
★ Routine profile (with haematology)	Whole blood EDTA and serum	£38.25	Same working day
★ Comprehensive profile (AP, ALT, total bilirubin, bile acids, urea, creatinine, CK, total protein, albumin, globulin, cholesterol, sodium, potassium, chloride, total calcium, phosphate, triglyceride, and glucose - if oxalate tube provided)	Serum (oxalate tube for glucose)	£38.00	Same working day
★ Comprehensive profile (with haematology)	Whole blood EDTA and serum (oxalate tube for glucose)	£55.00	Same working day
★ Liver profile (haematology, AP, ALT, GGT, bile acids, total bilirubin, cholesterol, glucose, urea, total protein, albumin, globulin, A/G ratio)	Whole blood EDTA and serum	£32.50	Same working day
★ Renal profile (haematology, urea, creatinine, sodium, potassium, chloride, phosphate, total calcium, cholesterol, total protein, albumin, globulin, A/G ratio)	Whole blood EDTA and serum	£24.00	Same working day

Feline Specific Haematology Tests

Test Name	Sample Required	Price	Turnaround Time
Feline blood grouping	Whole blood EDTA	£35.00	Same working day



Feline Specific Biochemistry and Endocrinology Tests

Test Name	Sample Required	Price	Turnaround Time
T4 (R)	Clotted blood / Serum or lithium heparin (fasting sample recommended)	£22.00	2 working days
Free T4 (R)	Clotted blood / Serum	£39.00	4 working days
TLI, Vitamin B12 / folate (R)	Clotted blood / Serum or lithium heparin (fasting sample recommended)	£55.00	Up to 1 week
Quantitative feline PLI (R)	Clotted blood / Serum	£60.00	8 working days

For a complete list of all tests available, please contact the laboratory.

Feline Post Mortem Examinations

Test Name	Sample Required	Price	Turnaround Time
Post mortem of a newborn cat up to 2 weeks old	Fresh / Cooled body	£105.00	Preliminary report within 2 working days. Final report within 10 working days
Post mortem of a cat over 2 weeks old	Fresh / Cooled body	£160.00	Preliminary report within 2 working days. Final report within 10 working days
Post mortem of a neurological case including evaluation of the spinal cord	Fresh / Cooled body	Additional £38.00 to the appropriate standard PM price (see above)	Final report within 10 working days

For legal cases photographic material is available at an extra charge of £35.00.

! Group cremation is included in the Post Mortem Examination fee. We regret that we can not return remains to the owners after post mortem. No additional charges are applied for group cremation. However, individual cremation can be arranged. The ashes, if requested, and the invoice for private cremation will be sent to the referring vet.



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Fighting disease and injury in animals

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