Protocol for sending feline hearts to the Royal Veterinary College

Please contact us prior to shipping:

Clinical investigation centre: CIC@rvc.ac.uk

Cardiology service: QMHACardiologyTeam@rvc.ac.uk

Preparation of the heart:

After removing the heart, flush gently with plain tap water, using a 10ml syringe inserted into the pulmonary artery, aorta, pulmonary veins and vena cava, to remove coagula from all chambers. Fix the whole heart in 10% neutral buffered formalin, at a tissue to volume ratio of 1:20, for a minimum of 24 hours prior to sending.

Sampling for DNA:

If you are sending a heart for participation in the Birman, Norwegian Forest cat or British Shorthair cardiomyopathy study, please include a sample for DNA. This can be:

- Whole blood or blood cell pellet in EDTA
- A small piece of liver or spleen in a plain tube and frozen

Which documents need to accompany the sample?

Please include consent for cardiac necropsy and sample storage, signed by the owner.

Please include a copy of clinical history, as well as any previous echocardiography results, where possible.

If the sample is for participation in the Birman, Norwegian Forest cat or British Shorthair cardiomyopathy study, please include a copy of the pedigree certificate.

Documents should be contained within the package in a separate sealable plastic bag and a copy emailed to: lwikie@rvc.ac.uk

Packaging instructions:

Heart

- Place the heart inside a suitable primary receptacle. This must be leak proof and strong enough to withstand shocks and loadings normally encountered during transport. Do not use glass containers.
- Lids should be reinforced with parafilm or adhesive tape.

Blood and frozen tissue samples

- Spleen or liver samples should be sent in standard plain tubes.
- Blood should be collected into and sent in EDTA tubes
- These samples should be placed into a rigid outer container. A hard 60ml syringe case or similar can be used if an approved container is not available. Lids should be reinforced with parafilm or adhesive tape.

Secondary packaging

- Place absorbent material, such as cotton wool, between the primary receptacle and secondary packaging. This material should be of sufficient quantity to absorb the entire contents of the primary receptacle, so that any release of liquid contents will not compromise the integrity of the cushioning material or outer packaging.
- The secondary packaging should be leak-proof, and preferably solid.
- Each primary receptacle must be separate and individually wrapped to prevent contact.

Outer packaging

- Secure the primary receptacles in their secondary packaging inside a sturdy outer packaging for transport. Outer packaging must be rigid, consisting of corrugated fibreboard, wood, metal or rigid plastic and must be appropriately sized for content.
- Please ensure this includes adequate cushioning material to protect fragile contents and limit movement.

Styrofoam boxes, plastic bags and paper envelopes are UNACCEPTABLE outer packaging.

Labelling the outer packaging:

Samples should be labelled as **'fragile-with care'** or similar and with arrows indicating which way up the package should be kept, as well as the text **'BIOLOGICAL SUBSTANCE CATEGORY B'** at least 6mm high on the external surface of the outer packaging adjacent to the following mark, this should be clearly visible and legible:

The UN mark must be of sufficient size that each side has a length of at least 50mm, the width of the line must be at least 2mm and the letters and numbers must be at least 6mm high.

The name and telephone number of the person responsible for the sample (sender) must be marked on the package.

Transport:

Frozen samples do not need to be shipped on dry ice, as long as expected transport time is not estimated to exceed 48 hours.

Do not send biological samples via Royal Mail. Packages must be sent via a courier that accepts biological samples and formalin fixative. Some examples include: City Sprint, FedEx, PDP, DPD, UPS