

# How to get the most out of your Large Animal Histopathology service

To achieve the best results from histopathology submissions the collection and fixation of tissues, and the submission of relevant clinical information is **vital**. The better the material and information we receive the better the result you will get.

This factsheet briefly outlines the requirements regarding the use of fixatives and the requirements for sample submission to the laboratory.

## Fixative

Specimens should be placed in fixative as soon as possible after surgical excision or post-mortem examination.

We provide biopsy pots containing 10% neutral buffered formalin in two sizes 30ml & 60ml. These are supplied within a secondary pot with absorbent pad suitable for submission of diagnostic specimens. Please do not use the larger outer pots to submit samples as they are not designed for this purpose.

10% neutral buffered formalin is the preferred fixative. Some practices may have stock of formaldehyde 40%. This will need to be diluted before use as using it in its concentrated form can cause artefact in the tissue. A 10% solution can be made using distilled or tap water (for example 10ml of 40% formaldehyde and 90ml of water will give you a 10% formalin solution /4% formaldehyde solution). A stock bottle labelled 4% formaldehyde can be used neat.

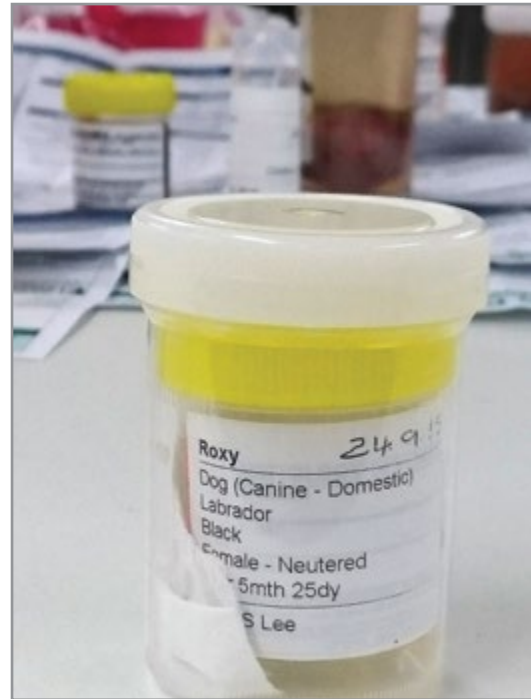
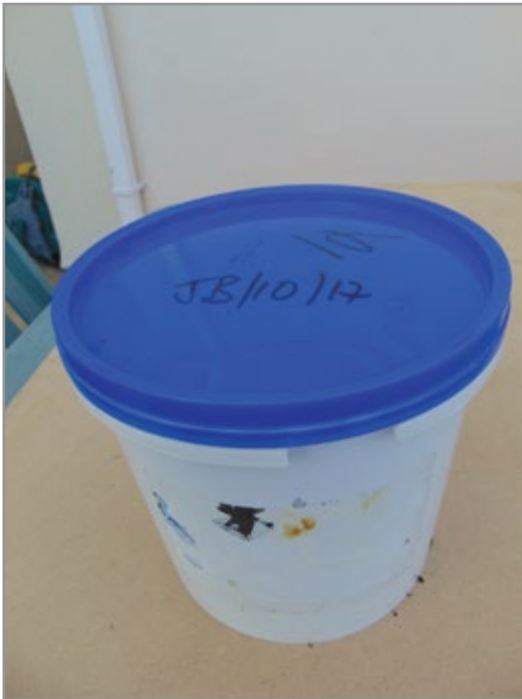
## Sample too large for to fit in our biopsy pots?

Please do not squeeze large samples into a pot as this will not allow for adequate fixation and the sample will take the form of the pot!



## Guidelines for submission of tissue specimens for histology

For larger samples (for example brain, bone and whole tissue samples such as heart etc.), we would advise that the sample is fixed in a larger container with lid (such as a large tub as illustrated below) **at the practice**, then wrapped in formalin soaked gauze/tissue and double bagged. To ensure good fixation the recommendation is 1:10 tissue/formalin. The length of time the sample should be left to fix at the surgery will depend on the size/type of tissue and method of transportation to the laboratory also. Most samples, providing they can be left to fix for most of the day, can be sent to the laboratory that night. If the sample is large such as a brain, please leave in formalin for at least 48hrs prior to sending. Please do not send these submissions in the container used to fix the sample. Soak some gauze/tissue in the formalin and squeeze out the excess. Wrap this around the sample so it is kept moist in transit then double bag, ensuring each bag is completely sealed before placing inside the outer packaging (see below). Some samples can be cut in half/sectioned into portions and submitted in separate, labelled biopsy pots.



## Guidelines for submission of tissue specimens for histology

### Labelling

Please label the pot(s) with the following information.

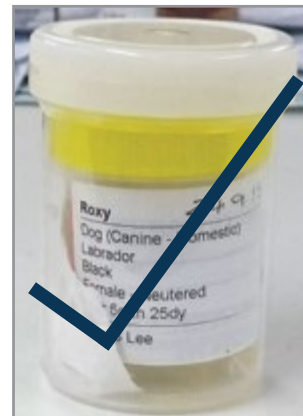
- The client/animal name
- Site/location or via a key if relevant. This may be useful if multiple pots/sites have been submitted. A key can often be helpful here - for example a '1' on the pot with the key on the submission form i.e. 1=lung etc.

**Please write on the label provided on the actual biopsy pot. DO NOT write or label the outer pot.**

### Packaging

Ensure the lid is fixed firmly to the pot. Use pots provided by us as these are fit for purpose and contain secondary packaging that complies to P650 packaging regulations required to transport diagnostic specimens.

Using pots that are not fit for purpose/packaged appropriately put staff handling the material at risk. Under no circumstances should a sharps bin, glass jar, Tupperware containers or narrow necked pot be used in replacement of a biopsy pot. These are not suitable for purpose. We often have to smash or saw open such receptacles to gain access! The same rules apply when using our own dedicated courier service.



## Guidelines for submission of tissue specimens for histology

### Completing the submission form

Unless printing electronically from your practice management system, please use the submission forms provided as they are pre-addressed with your account reference.

Please complete all fields as fully as possible, particularly providing a relevant but succinct clinical history.

- **Signalment (species, breed, age, gender, colour)** – this information can suggest the likelihood of certain conditions or disease processes
- **Clinical history** – a brief but accurate summation, including onset, duration, previous treatments and clinical response
- **Number of specimens and specific sites/organs** – exactly where the samples were obtained
- **Description of clinical and/or post mortem findings**
- **Gross appearance of lesion(s)** – size; colour; texture, any other pertinent information
- **List of differential diagnoses or clinical impressions** – even if a definitive diagnosis cannot be made, we may be able to rule out suspected conditions
- **Any specific questions** – what do you *really* want to know about this case?

### Help us to help you!

One of the most important and often overlooked aspects of submitting laboratory samples for histopathology or cytology is the inclusion of vital information about the post mortem lesion and clinical history. We know that in a busy veterinary practice it can be difficult to find the time to fill out submission form details. However, more often than not, by providing the pathologist with a concise and relevant clinical history and post mortem findings (when appropriate), you will receive a more accurate and diagnostically useful report.

Digital images of lesions are increasingly being submitted along with samples and can often prove very helpful... as the saying goes: *"A picture is worth a thousand words."* If you have images of the lesion, please print us a copy or email them to:

[histology@axiomvetlab.co.uk](mailto:histology@axiomvetlab.co.uk)

The above may seem like a lot of information (and effort!) but taking a few minutes to provide these details will make life a lot easier at our end, and ultimately for you, the practitioner, who has to explain the laboratory findings to the owner. Remember, we are both hoping to achieve the same thing: formulation of an accurate diagnosis and, where appropriate, a prognosis.

Please do not hesitate to get in contact with us for further assistance on submission of your samples.

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