* 1. GENERAL GUIDELINES FOR SENDING MUSCLE BIOPSIES

**Arranging for a Muscle Biopsy Procedure to be performed at Southmead Hospital**

There is a theatre slot for up to three muscle biopsies to be performed at Southmead Hospital approximately every four weeks.

In order to request a muscle biopsy, it is necessary to complete a Muscle Biopsy Booking Form (**NP-MGT-FM-039**), available from the Neuropathology secretaries (NeuropathologySecretaries@nbt.nhs.uk), and emailed back to them together with any relevant referral/clinic letters. As much information as possible should be supplied regarding the patient's clinical history and recent investigations. **Any known biohazards should be made clear at this time. If the patient is TB or CJD positive, please contact us as we cannot perform analysis on fresh frozen muscle for these patients due to the risk of inoculation.**

The referral will then be reviewed by the consultant neuropathologist at which point the choice of biopsy site, and the size and orientation of specimen, can, if necessary, be discussed.

Once the referral has been approved, it will be triaged with the Neurology Waiting List Co-ordinator (baiba.averate@nbt.nhs.uk) and added to the next available theatre slot (which may well be several weeks from the original date of referral). The Waiting List Co-ordinator will write to the patient with the appointment date and include an information pack relating to the muscle biopsy procedure, and will liaise with them if there are any issues over the suitability of the theatre slot.

The Neuropathology secretaries will be able to advise you on the progress of the referral.

**General Guidelines for Sending a Muscle Biopsy Specimen to the Neuropathology Department**

**Prior Notification**:

As much notice as possible should be given to the Neuropathology department of the referral of the muscle biopsy specimen. All referrals should be accompanied by the Muscle Biopsy Booking Form (**NP-MGT-FM-039**), available from the Neuropathology secretaries (NeuropathologySecretaries@nbt.nhs.uk), and or/as much information as possible regarding the patient's clinical history and recent investigations. **Any known biohazards should be made clear on the request form. If the patient is TB or CJD positive, please contact us as we cannot perform analysis on fresh frozen muscle for these patients due to the risk of inoculation.**

 Ideally this paperwork can be emailed in advance to the secretaries.

The choice of biopsy site, and the size and orientation of specimen, may need prior discussion with a consultant neuropathologist.

Please schedule the procedure early enough in the day to ensure the specimen arrives at the laboratory before 3pm, allowing time for the specimen to be sampled and prepared immediately after its arrival.

Early on the day of the procedure contact the laboratory (0117 4142400) to provide us with an expected delivery time for the specimen. This helps us manage the day’s workload. Arrangements for delivering the specimen to the Neuropathology Department should bear in mind that the time elapsing between taking the biopsy and its delivery to the laboratory should be kept to a minimum. If you anticipate a delay in excess of 30 minutes, liaise with a consultant neuropathologist or Biomedical Scientist.

**Open Biopsies**:

There are specific requirements for taking the tissue sample:

1. Open muscle biopsies may be performed under local or general anaesthesia. However if the biopsy has to be taken under local anaesthesia, please avoid infiltration of the muscle itself by the anaesthetic, which will seriously affect its suitability for assessment of some conditions. It is also important that the muscle fascicles are removed without prior diathermy.
2. We recommend that that at least two strips of muscle of approximately pencil thickness and around 15mm in length are dissected from the surface of the muscle. These need to be in alignment with the natural direction of the muscle fibres.
3. The specimen should not be tethered or pinned in any way.
4. Ensure that there is ***no specimen contact with any fluid***, for example fixative or saline solutions.
5. a) The specimen(s) should be gently wrapped in cling-film and placed in an airtight container for transport to the laboratory**. Ensure that the specimen is not crushed whilst being wrapped**. If the specimen is taken in Brunel theatres, it can then be sent to the department via pneumatic tube system, and the laboratory should be telephoned on x42400 prior to putting in the tube. If the specimen is taken elsewhere then it should be couriered to the department as soon after taking it as possible and the department should be notified when it is on its way by calling the laboratory on 01174142400.

b) If cling film is not available, the specimen can be placed on a non-absorbent support (e.g. a small piece of dental wax or foil), and this must be taken to the department via porter. The specimen must be delivered to the laboratory within 20 minutes of resection if the specimen is not wrapped in cling-film.

**Needle Biopsies**:

If for clinical reasons a needle biopsy procedure is preferable to performing an open biopsy, bear in mind that the small muscle samples taken are more prone to desiccation. Follow the guidelines in sections (4) and (5) above. Note that ***all needle biopsy specimens should be contained as in section 5a above***.

**Sending Peri-Mortem Biopsies out-of-hours:**

Peri-Mortem Biopsies may be sent to the Department of Neuropathology out of hours when there is no one available to receive them. These are usually taken by the University Hospital Bristol and Weston NHS Foundation Trust. The clinical teams are not aware in advance of these cases as it is related to the clinical condition and performed out of hours, usually there is an unexpected deterioration of the patient condition. Samples are therefore required to be collected urgently at this point and are arranged with out of hours staff (OOH). The muscle sample should be stored in their freezer and sent across the next working day. The OOH biomedical scientist bleep at UHBW is 2331. If clinicians require any more information, please refer to the UHBW protocol ‘SPECIMEN COLLECTION’

**Accompanying Documentation:**

The specimen container must be clearly labelled with the patient’s details, and should be accompanied by a specimen request form (NP-MGT-FM-039). This should correctly filled in and marked with any known biohazards.

**Packaging and Transport:**

If the specimen is to be sent to the Neuropathology Department from another hospital site, follow the instructions provided below:

* **Do not pack the specimen container with ice:** if the courier is delayed and the specimen begins to freeze slowly, the examination and diagnosis will be compromised. Also any water formed if the ice begins to melt will damage the specimen if it comes into contact with it.
* All specimens should be placed inside a sealed specimen bag, and appropriate labelling and outer packaging should be used. Specimens being transported between hospitals must be clearly labelled with a contact telephone number.
* Transport arrangements for delivering the specimen to the Neuropathology Department must be made well in advance, bearing in mind that the time elapsing between taking the biopsy and its delivery to the laboratory should be kept to an absolute minimum.
* **The courier should be on standby to take delivery of the specimen as soon after resection as is practically possible, and should immediately transport it to the Neuropathology Department at Southmead Hospital.** Ensure that the courier is aware of the importance of hand delivering the sample directly to a member of the Neuropathology team and that they should **NEVER** leave the sample in Specimen Reception without speaking to a member of the Neuropathology team first. There are details on finding the department in section 1 of the User Manual.

Please notify the laboratory once the specimen has been despatched, to provide us with an expected delivery time and a contact telephone number for the courier, in case the specimen does not arrive within the expected time.

THIS IS A CONTROLLED DOCUMENT