Dubowitz Neuromuscular Centre
Great Ormond Street Hospital for Children NHS Trust
NCG National Referral Centre for Congenital Muscular Dystrophies and Myopathies
Head of Service: Prof. F. Muntoni

DISPATCH INSTRUCTIONS

Section 1: General Information & Contact details

All specimens must be sent **by prior arrangement** by contacting:

Dr. Lucy Feng (l.feng@ich.ucl.ac.uk) and Prof Caroline Sewry (c.sewry@ich.ucl.ac.uk) Tel: 020 7692 2353 or Fax: 020 7676 2157

Samples should be addressed to:

Dr. Lucy Feng
Dubowitz Neuromuscular Centre
Institute of Neurology
Muscle Pathology Laboratory
1st Floor Queen Square House
Queen Square
London WC1N 3BG

Write the telephone number of the lab (020 7692 2353) on top of the parcel

Please enclose a completed NCG Referral Form , any relevant clinical information and the biopsy report if available.

Do not send samples for delivery on a Friday or Saturday. The best days to send samples are Monday to Wednesday.

The Laboratory opening hours are 9 AM- 5:00 PM

***** Note: We are not able to accept samples designated, or suspected, as being "High Risk" (i.e. from patients with HIV, hepatitis, CJD etc)***

Samples/containers must be clearly labelled with the patient name and date of birth or another second identifier (e.g. hospital number, laboratory specimen number)

Samples must be packed and shipped following **packaging instruction 650** for diagnostic specimens. The advice given in this document complies with instruction 650. Further information can be found in the HSE website: http://www.hse.gov.uk. Alternatively you can download information from our website by clicking on the link HSE Biological Agents guidelines'.

SAMPLES THAT ARE NOT SENT ACCORDING TO THESE INSTRUCTIONS MAY NOT BE SUITABLE FOR ANALYSIS

Section 2: Types of samples that we accept

Fresh muscle biopsy, skin biopsy, chorionic villi sample (CVS), frozen muscle, fibroblast cultures (frozen cells or in culture medium). The stained histological and immunohistochemical slides can be sent for review.

Section 3: Handling of samples

3.1 Duration of sample journey less than 2hrs (i.e. local hospitals)

Muscle biopsies must arrive within one hr of being obtained. If this is not possible proceed as in section 3.2. Skin, CVS and cell cultures can withstand room temperatures for a few hours.

Muscle biopsy:

Collect the biopsy in sterile gauze dampened in sterile saline (DO NOT immerse the biopsy in saline) and place inside a screw cap sterile 30 ml container labelled with patient details. Place the container inside a sealed leak-proof transparent plastic bag and bring to the lab. If sending, place the bag inside an appropriate outer container with cushioning (e.g. padded envelope) labelled with UN3373.

When obtaining a muscle biopsy for respiratory chain enzymes analysis, a piece of approximate 1 cm long x 0.5 cm wide is preferable.

** *Note: When sending liquids absorbent material shall be placed between the primary receptacle(s) and the secondary packaging. The absorbent material shall be in quantity sufficient to absorb the entire contents of the primary receptacle(s) so that any release of the liquid substances will not compromise the integrity of the cushioning material or of the outer packaging.*

Skin biopsy

In an aseptic manner obtain a piece of skin deep enough to include the dermal layer. Deposit the biopsy in a sterile leak-proof container (e.g. small universal with screw cap labelled with patient details) containing approximately 4 ml of sterile standard culture medium (e.g. Dulbecco's modified Eagle's medium without either antibiotics or serum). Place the sterile container inside a leak-proof sealed transparent plastic bag with absorbent material (e.g. cotton wool or absorbent paper). Either bring as soon as possible to the lab or send at room temperature. If sending, place the bag inside an appropriate outer container with cushioning (e.g. padded envelope or small box with bubble wrap) labelled with UN3373.

C.V.S.

Immerse the C.V.S. cleaned of maternal blood (10-15 branches) in approximately 4 ml of sterile standard culture medium (as above) inside a leak-proof small universal with screw cap labelled with patient details. Place the sterile container inside a leak-proof sealed transparent plastic bag with absorbent material (e.g. cotton wool or absorbent paper). Either bring as soon as possible to the lab or send at room temperature. If sending, place the bag inside an appropriate outer container with cushioning (e.g. padded envelope or small box with bubble wrap) labelled with P650 UN3373 and send at room temperature.

***CVS may be sent at 4℃ to arrive within 24 hrs aft er sampling.**

Fibroblast cell culture

Send at room temperature in a 50-100 ml sealed leak-proof flask filled to the top with medium supplemented with 20% serum. In addition to patient details, indicate passage number on the flask. Place the flask inside a leak-proof sealed transparent plastic bag with sufficient absorbent material to absorb all the culture medium and then in an appropriate outer container with cushioning (e.g. padded envelope or small box) labelled with UN3373. Send at room temperature.

3.2. Duration of sample journey longer than 2hrs

If the duration of sample journey is more than 2 hrs samples should be partially processed before being sent to ensure optimum preservation. Samples have to be processed in a manner adequate for each of the diagnostic tests that will be carried out here in the lab. We can provide advice and information for freezing samples, muscle or CVS. Skin samples can be cultured and sent as cultured fibroblasts. Please ask when arranging the referral.

*** Note: When sending samples with dry ice interior supports shall be provided to secure the secondary packaging in the original position after the ice or dry ice has dissipated. The packaging shall be designed and constructed to permit the release of carbon dioxide gas to prevent a build-up pressure that could rupture the packaging. The primary receptacle and the secondary packaging shall maintain their integrity at the temperature of the refrigerant used as well as the temperatures and the pressures that could result if refrigeration were lost.*

Muscle biopsy:

OCT block for histology and immunohistochemistry:
Orientate the muscle sample (approx 20-50mg. minimum 2.5mm^3) so the fibres will be transverse when sectioned. Cover the muscle of the block with OCT (Tissue-Tek) and freeze in isopentane cooled in liquid nitrogen.

CVS for immunohistochemistry analysis should be placed on top of OCT before freezing in liquid nitrogen cooled isopentane.

For Western blotting:
Cut a piece of approximately 30 -50 mg from the biopsy. Place inside a cryotube or wrap in a piece of foil and snap freeze in liquid nitrogen. Place the sample in a sealed leak-proof transparent plastic bag with cushioning (e.g. some bubble wrap).

Section 4: Dispatch of samples

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Place all frozen samples in a bag inside a polysterene box filled with abundant (2-5Kg, depending on journey duration) dry-ice (solid CO_2). Place the polysterene box inside a strong cardboard box. Label the box with P650 UN3373 and DRY ICE CLASS 9 UN1865 and the number and weight of package. Send by courier overnight.

Copies of these dispatch instructions and the referral form can be downloaded following the relevant links.