



# The University of Sydney & Royal Prince Alfred Hospital

## NEUROLOGY LABORATORY

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### PROCEDURE FOR SKELETAL MUSCLE BIOPSY

#### Information for Surgeon

We request 24-hour notice to schedule receipt of the specimen at the Neurology Lab, University of Sydney. Please call your hospital Pathology Department in advance of surgery so that transportation can be arranged. In order to give us sufficient time to process the specimen, the courier should reach our lab **no later than 3.30 PM** on same day of the biopsy.

1. Preferred biopsy sites:

- Deltoid, biceps, vastus lateralis, quadriceps, or as specified by the requesting physician.
- If the patient is suspected to have an **inflammatory myopathy**, fascia may be included.
- If the symptoms are **intermittent** perform the biopsy while the patient is experiencing a relapse.

2. Surgical technique:

- For local anaesthesia, local infiltration with lidocaine without epinephrine. Do not infiltrate the muscle.
- Avoid muscle that has had EMG manipulation or severely wasted muscle, or muscle that is not affected or normal.
- **Avoid electrocautery completely** in opening the muscle and all aspects of the biopsy until after the specimen has been removed. Cautery causes severe artifact, not only by rendering the cauterized portions uninterpretable, but often results in contraction artifact throughout the specimen.
- Take the biopsies from the belly of the muscle, avoiding when possible subfascial and myotendinous areas.
- Note: Isometric muscle biopsy clamps are **not** necessary in the removal of the biopsies, and should be specifically avoided in infant or young pediatric biopsies.
- Please obtain two intact pieces of muscle, each approximately 1-2 cm in length X 0.5-0.8 cm. in thickness.
- Small fragments or multiply incised biopsies are often inadequate for diagnosis.
- Wrap the specimens in gauze that has been **lightly dampened** with saline. Never immerse a specimen in saline or fixative of any kind. Place the specimen in a water-tight specimen jar. The specimen jar should be transported with wet ice (do not freeze the specimen) in an esky.