**Purpose**

To establish a procedure on how to remove and triage muscle biopsies for diagnostic evaluation.

**Procedure**

**INFORMATION FOR CLINICIANS**

* Call the IPOX lab at 764-8170, with at least one day in advance if you plan to do a muscle biopsy, for the supplies and instructions.
* If you have a question regarding appropriate muscle to biopsy contact neuropathologist on service:  Dr. McKeever (734-936-3498; pager: 1426) or Dr. Camelo-Piragua (734-615-9436; pager: 17599).
* If procedure is done after hours, contact the pathology resident on call (734-936-6267) before starting the procedure to assure the specimen is processed as soon as it is received.
* It is the surgeon’s responsibility to get the tissue to the Pathology Department.  
     
  **A.  OPEN SCALPEL BIOPSIES:**    
     
  Biopsies from adult patients (> 16 years of age) should contain 3 specimens:

1. One piece for histochemical stains, it should measure about 2 cubic centimeters.  It should be gently removed from the belly of the muscle (avoid tendinous insertion!) and placed immediately in saline soaked gauze in a closed container.  It should not be allowed to dry out or float in water or saline.  It also should not be infused with excess lidocaine.    
     
2. One piece for formalin fixation and paraffin embedding.  It must be stretched on a tongue blade before immersion in formalin.  It should measure about 2cm in length to allow stretching and tightening and at least 1.5cm in thickness.  Please take care that there is enough formalin within the container.  
     
3.  One small piece for electron microscopy, similar in thickness to a match or a rounded toothpick.  Attached to the sterile metal clamp in situ, this piece should not be teased or allowed to dry during its separation from the rest of the muscle.  It should be immediately, within a few seconds, placed in a specimen jar full of glutaraldehyde if available. If not available in the OR, specimens (1 to 3) should be sent to pathology immediately, to process in a timely fashion.    
     
Biopsies from children (<16 years old) should have 2 separate  pieces frozen as described in #1 above, and 1 small specimen for electron microscopy as described in #3 above.  The formalin fixed portion (as in #2) is not required (however it is useful in cases of suspected inflammatory myopathy).

**B. NEEDLE MUSCLE BIOPSY:**

The entire biopsy is placed immediately on saline soaked gauze within a closed container and delivered to the Pathology Department where it will be frozen, except for a tiny bit that will be dropped in glutaraldehyde.  No formalin fixed tissue is required.