Each study table is to be used for one muscle nerve/site. If testing is done on multiple nerves/sites, copies should be made of the page needed to record all data.

1. Motor Nerve Conduction Studies

Date of Test (yyyy-mm-dd):

Nerve/Side: Temperature: 0C

Table 1 Recording Muscle Nerve/Site Testing

| Segment | Latency  (normal limit) (ms) | Segment Length (cm) | Amplitude  (normal limit) (mV) | Dispersed? |
| --- | --- | --- | --- | --- |
| Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site |
| Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site |
| Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site |
| Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site |
| F-wave, minimum latency | ms |

1. Sensory Nerve Conduction Studies

Date of Test (yyyy-mm-dd):

Nerve/Side: Temperature: 0C Impulse Direction:  Orthodromic  Antidromic

Table 2 Recording Sensory Nerve Conduction Testing

| Segment | Segment Length (cm) | Onset or Peak Latency (ms) | Velocity  (normal limit) (ms) | Amplitude  (normal limit) (mV) |
| --- | --- | --- | --- | --- |
| Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site |
| Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site |
| Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site |

1. H-reflex Study

Date of Test (yyyy-mm-dd):

Table 3 Recording H-reflex Testing

| Nerve Segment | Latency, left (ms) | Latency, right (ms) |
| --- | --- | --- |
| Data to be entered by site | Data to be entered by site | Data to be entered by site |

1. Blink Reflex Test

Date of Test (yyyy-mm-dd):

Recording Electrode:  Needle  Surface

Table 4 Blink Reflex Testing

| Stimulus Site | Side | R1 Latency (ms) | Ipsilateral R2 Latency (ms) | Contralateral R2 Latency (ms) |
| --- | --- | --- | --- | --- |
| Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site | Data to be entered by site |

1. Repetitive Nerve Stimulation Studies

Date of Test (yyyy-mm-dd):

Nerve/Muscle:

Side:

Temperature: 0C

Stimulation rate: Hz

Stimulus Duration: µs

Stimulus Intensity: mV

Preactivation:

Table 5 Repetitive Nerve Stimulation Studies

| N/A | Amplitude | Area |
| --- | --- | --- |
| #1 | mV | mVms |
| #n | mV | mVms |
| 1-nΔ | mV | mVms |

Activation Technique:  Maximum contraction  High frequency stimulation1Activation Duration**:** sec

1If High frequency stimulation, specify frequency used**:** Hz

Postactivation**:** Time**:**

Table 6 Repetitive Nerve Stimulation Studies 2

| N/A | Amplitude | Area |
| --- | --- | --- |
| #1 | mV | mVms |
| #n | mV | mVms |
| 1-nΔ | mV | mVms |

Postactivation: Time:

Table 7 Repetitive Nerve Stimulation Studies 3

| N/A | Amplitude | Area |
| --- | --- | --- |
| #1 | mV | mVms |
| #n | mV | mVms |
| 1-nΔ | mV | mVms |

Postactivation: Time:

Table 8 Repetitive Nerve Stimulation Studies 4

| N/A | Amplitude | Area |
| --- | --- | --- |
| #1 | mV | mVms |
| #n | mV | mVms |
| 1-nΔ | mV | mVms |

Postactivation: Time:

Table 9 Repetitive Nerve Stimulation Studies 4

| N/A | Amplitude | Area |
| --- | --- | --- |
| #1 | mV | mVms |
| #n | mV | mVms |
| 1-nΔ | mV | mVms |

1. Needle Electromyography

Date of Test: // (yyyy-mm-dd)

Electrode Type:  Concentric  Monopolar

Table 10 Needle Electromyography

| Muscle Name: | Left | Right |
| --- | --- | --- |
| Spontaneous Activity (SA) | Fibrillation potentials  Positive sharp waves  Fasciculation potentials | Fibrillation potentials  Positive sharp waves  Fasciculation potentials |
| Spontaneous Activity (SA), Other | Data to be entered by site | Data to be entered by site |
| MUAP: Amplitude | uV | uV |
| MUAP: Area | uVms | uVms |
| MUAP: Duration | ms | ms |
| MUAP: Complexity | % | % |
| MUAPs: Stable | Yes No | Yes No |
| MUAP: Recruitment | Normal  Increased/Early  Decreased | Normal  Increased/Early  Decreased |
| MUAP: Activation | Normal Decreased | Normal Decreased |
| Interference Pattern Analysis Technique | Data to be entered by site | Data to be entered by site |
| Interference Pattern Analysis Result | Data to be entered by site | Data to be entered by site |

1. Neuromuscular Jitter Studies

Date of Test: // (yyyy-mm-dd)

Electrode Type:  SFEMG  Concentric Needle

Activation Technique:  Voluntary  πStimulation π If Stimulation, specify:  Axonal  Nerve

Table 11 Neuromuscular Jitter Studies

| Muscle | # pairs/endplates studied | Mean MCD | # w/Abnormal MCD | # w/Blocking |
| --- | --- | --- | --- | --- |
| Data to be entered by site | Data to be entered by site | µs | Data to be entered by site | Data to be entered by site |
| Data to be entered by site | Data to be entered by site | µs | Data to be entered by site | Data to be entered by site |

1. Fiber Density

Date of Test: // (yyyy-mm-dd)

Table 12 Fiber Density Studies

| Muscle/Side | Fiber Density |
| --- | --- |
| Data to be entered by site | Data to be entered by site |
| Data to be entered by site | Data to be entered by site |

1. Motor Unit Number Estimation (MUNE)

Date of Test: // (yyyy-mm-dd)

Table 13 Motor Unit Number Estimation (MUNE) Studies

| Motor Unit | Results |
| --- | --- |
| Muscle/Side | Data to be entered by site |
| Technique Used | Data to be entered by site |
| Nerve Stimulated | Data to be entered by site |
| CMAP | uV |
| Average sMUAP | uV |
| Number of sMUAPs averaged | Data to be entered by site |
| N/A | Data to be entered by site |

1. Autonomic Function Testing

Date of Test: // (yyyy-mm-dd)

* 1. Heart Rate variability with Deep Breathing: beats/min
  2. Expiratory/Inspiratory (E/I) Ratio:
  3. Mean circular resultant:
  4. Valsalva Maneuver
     1. Valsalva Ratio:
     2. Blood Pressure Response to Valsalva Maneuver – Phase II early:
     3. Blood Pressure Response to Valsalva – Phase II late:
     4. Blood Pressure Response to Valsalva Maneuver – Phase IV
  5. Quantitative Sweat Function
     1. Foreman: uL
     2. Proximal Leg : uL
     3. Distal Leg: uL
     4. Foot
  6. Tilt Study
     1. Heart rate changes:
     2. Blood Pressure changes:

Table 14 Autonomic Function Testing

| Test | Results |
| --- | --- |
| Heart Rate variability with Deep Breathing | beats/min |
| Expiratory/Inspiratory(E/I) Ratio | Data to be entered by site |
| Mean circular resultant | Data to be entered by site |
| Valsalva Maneuver: Valsalva Ratio | Data to be entered by site |
| Valsalva Maneuver: Blood Pressure Response to Valsalva Maneuver – Phase II early | Data to be entered by site |
| Valsalva Maneuver: Blood Pressure Response to Valsalva Maneuver – Phase II late | Data to be entered by site |
| Valsalva Maneuver: Blood Pressure Response to Valsalva Maneuver – Phase IV | Data to be entered by site |
| Quantitative Sweat Function: Forearm | uL |
| Quantitative Sweat Function: Proximal Leg | uL |
| Quantitative Sweat Function: Distal Leg | uL |
| Quantitative Sweat Function: Foot | uL |
| Tilt Study: Heart Rate changes | Data to be entered by site |
| Tilt Study: Blood Pressure changes | Data to be entered by site |

1. Short Exercise Test

Date of Test: // (yyyy-mm-dd)

Nerve/Side:

Muscle:

Table 15 Short Exercise Study

| Pre-exercies CMAP 3 minutes | Pre-exercies CMAP 2 minutes | Pre-exercies CMAP 1 minute | Post-exercise CMAP immediately | Post-exercise CMAP 10 seconds | Post-exercise CMAP 20 seconds | Post-exercise CMAP 30 seconds | Post-exercise CMAP 40 seconds | Post-exercise CMAP 50 seconds | Post-exercise CMAP 60 seconds |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| mV | mV | mV | mV | mV | mV | mV | mV | mV | mV |

1. Long Exercise Test

Date of Test: // (yyyy-mm-dd)

Nerve/Side:

Muscle:

Table 16 Pre-exercise Long Exercise Study

| Pre-exercise CMAP 3 minutes | Pre-exercise CMAP 2 minutes | Pre-exercise CMAP 1 minute |
| --- | --- | --- |
| mV | mV | mV |

Table 17 Post-exercise Long Exercise Study

| Post-exercise CMAP immediately | Post-exercise CMAP 1 minute | Post-exercise CMAP 2 minutes | Post-exercise CMAP 3 minutes | Post-exercise CMAP 4 minutes | Post-exercise CMAP 5 minutes | Post-exercise CMAP 6 minutes | Post-exercise CMAP 7 minutes | Post-exercise CMAP 8 minutes | Post-exercise CMAP 9 minutes |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| mV | mV | mV | mV | mV | mV | mV | mV | mV | mV |
| CMAP 10 minutes | CMAP 11 minutes | CMAP 12 minutes | CMAP 13 minutes | CMAP 14 minutes | CMAP 15 minutes | CMAP 16 minutes | CMAP 17 minutes | CMAP 18 minutes | CMAP 19 minutes |
| mV | mV | mV | mV | mV | mV | mV | mV | mV | mV |
| CMAP 20 minutes | CMAP 21 minutes | CMAP 22 minutes | CMAP 23 minutes | CMAP 24 minutes | CMAP 25 minutes | CMAP 26 minutes | CMAP 27 minutes | CMAP 28 minutes | CMAP 29 minutes |
| mV | mV | mV | mV | mV | mV | mV | mV | mV | mV |
| CMAP 30 minutes | CMAP 31 minutes | CMAP 32 minutes | CMAP 33 minutes | CMAP 34 minutes | CMAP 35 minutes | CMAP 36 minutes | CMAP 37 minutes | CMAP 38 minutes | CMAP 39 minutes |
| mV | mV | mV | mV | mV | mV | mV | mV | mV | mV |
| CMAP 40 minutes | CMAP 41 minutes | CMAP 42 minutes | CMAP 43 minutes | CMAP 44 minutes | CMAP 45 minutes | CMAP 46 minutes | CMAP 47 minutes | CMAP 48 minutes | CMAP 49 minutes |
| mV | mV | mV | mV | mV | mV | mV | mV | mV | mV |
| CMAP 50 minutes | CMAP 51 minutes | CMAP 52 minutes | CMAP 53 minutes | CMAP 54 minutes | CMAP 55 minutes | CMAP 56 minutes | CMAP 57 minutes | CMAP 58 minutes | CMAP 59 minutes |
| mV | mV | mV | mV | mV | mV | mV | mV | mV | mV |
| CMAP 60 minutes |
| mV |

## General Instructions

This form contains data elements that are collected when performing various types of electrophysiology studies.

Important note: None of the data elements included on this CRF Module are classified as Core (i.e., strongly recommended for Adult NMD clinical studies to collect). All data elements are classified as supplemental (i.e., non Core) and should only be collected if the research team considers them appropriate for their study. Please see the Data Dictionary for element classifications.

## Specific Instructions

Please see the Data Dictionary for definitions for each of the data elements included in this CRF Module.

* Electrophysiology assessment date **-** Record the date/time according to the ISO 8601, the International Standard for the representation of dates and times ([Click here to view the ISO 8601](http://www.iso.org/iso/home.html)). The date/time should be recorded to the level of granularity known (e.g., year, year and month, complete date plus hours and minutes, etc.) and in the format acceptable to the study database.