

EMG CLASS PRACTICAL REQUIREMENTS:

PGY II Responsibilities:

- 1) Set-up EMG instrument for a sensory study: (will do two)
 - 1) median sensory (all)
 - 2) ulnar sensory
 - 3) radial sensory
 - 4) sural sensory
- 2) Set-up EMG instrument for a motor study:
 - 1) median motor (all)
 - 2) ulnar motor
 - 3) peroneal motor
 - 4) tibial motor
- 3) Must to obtain results from the screen for 1 study:
 - 1) latency
 - 2) amplitude
 - 3) conduction velocity

PGY III Responsibilities: (including PGY II responsibilities)

- 1) Set-up EMG instrument for long-latency response, perform technique and interpret response for 1 of the below:
 - 1) lower limb H-reflex
 - 2) upper limb F-wave
 - 3) lower limb F-wave
- 2) Set-up EMG instrument for needle EMG study.
- 3) Demonstrate the appropriate components for EMG needle technique including:
 - 1) location
 - 2) muscle at rest
 - 3) insertional activity
 - 4) initial recruitment
 - 5) maximal recruitment

Above activity for 1 upper and limb muscle:

UPPER LIMB (ONE)

Deltoid
Biceps
Triceps
Brachioradialis
Pronator Teres
Ext. Carpi Rad. Long
APB
ADM
1Di

LOWER LIMB (ONE)

Glut Max
Glut Med
Biceps Femoris
Semitendinosus
Vastus Medialis
Rectus Femoris
Ant Tib
Peroneous Longus
Gastrocnemius
Ext. Hallicus Long

PGY IV RESPONSIBILITIES : (Including PGY II & III) :

- 1) Perform I Nerve conduction study using supraclavicular stimulation and discuss.
 - 1) Axillary N.
 - 2) Musculocutaneous N.
 - 3) Suprascapular N.
 - 4) Long Thoracic N.
- 2) Perform repetitive stimulation technique and be able to discuss the meaning of various results.
- 3) Demonstrate appropriate needle technique for unusual muscles.

Serratus Ant.
Rhomboids
Supraspinatus
Infraspinatus
Flex Carpi Ulnaris
Ext Ind Prop
Supinator
Flex Poll Longus
ABD Poll Longus
Flex Dig. Profundus

Pronator Quadratus
Adductors
PSOAS
Posterior Tibials
Flex Dig Longus
EDB
ABH
ADH

SKILL REQUIREMENTS

SENSORY & MOTOR STUDIES

SET GAIN
SET SWEEP SPEED
ELECTRODE PLACEMENT
 REFERENCE
 ACTIVE
 GROUND
 (WITH CONDUCTING GEL)
CONNECT ELECTRODES TO PRE-AMP
MEASURE CORRECT DISTANCE
CORRECT SIMULATOR DIRECTION
CORRECT DURATION/INTENSITY
 OF STIMULUS

F WAVE & H REFLEX STUDIES

SET GAIN
SET SWEEP SPEED
ELECTRODE PLACEMENT
 REFERENCE
 ACTIVE
 GROUND (WITH CONDUCTING GEL)
CONNECT ELECTRODES TO PRE-AMP
MEASURE CORRECT DISTANCE
CORRECT STIMULATOR DIRECTION
CORRECT DURATION/INTENSITY OF STIMULUS
CORRECT WAVE FORM ACQUISITION

REPETITIVE STIMULATION

SET-UP COMPUTERIZED INSTRUMENT (SAPPHIRE)
DISCUSS APPROPRIATE MUSCLE GROUPS
ACQUIRE 1 STUDY
DISCUSS STIMULATION AND/OR EXERCISE PROTOCOL
DISCUSS INTERPRETATION OF FINDINGS

SUPPRACLAVICULAR NCS

ATTACH ELECTRODES FOR REQUESTED MUSCLE
 REFERENCE
 ACTIVE
 GROUND (WITH CONDUCTING GEL)
DEMONSTRATE CORRECT STIMULATOR SITE AND POSITION

NEEDLE EMG STUDY

SET GAIN
SET SWEEP SPEED
ELECTRODE PLACEMENT
 REFERENCE
 GROUND
REAL TIME RECORDING
CONNECT TO PRE-AMP
LOCATE MUSCLE
 ID MOTOR POINT
MUSCLE AT REST
INSERTIONAL ACTIVITY
INITIAL RECRUITMENT
MAXIMAL RECRUITMENT

UNUSUAL MUSCLES FOR EMG

ID MOTOR POINT

**University of Kentucky
Physical Medicine and Rehabilitation
Resident Competency Test for Electrodiagnostics**

Name: _____

TEST	PGY2 Date/Evaluator	PGY3 Date/Evaluator	PGY4 Date/Evaluator
Motor Studies			
Sensory Studies			
CMAP Interpretation			
Long Latency Responses			
Instrumentation for EMG			
Upper Limb Needle Exam			
Lower Limb Needle Exam			
Supraclavicular NCS			
Repetitive Stimulation			
Unusual Muscles for EMG			

Direct Observation Neurolytic Injection

Resident Name/PGY: _____

Site of Intervention: (check all that apply)

Evaluators Name: _____

- Neck
- Shoulder Girdle
- Upper Extremity
- Lower Extremity

Date Performed: _____

	Needs Improvement	Meets Expectations	NA
Communicates accurately the intended expectations of the procedure			
Answers all patient or family questions accurately			
Obtains informed consent that includes appropriate explanation of risk and benefits			
Identifies the involved muscles requiring intervention			
Develops a neurolytic plan with appropriate dosing for each muscle including sides of treatment			
Prepares medications appropriately			
Performs a time out to confirm patient identification, dosing and injection plan			
Uses anatomical landmarks to correctly isolate muscle intended for injection			
Appropriately uses EMG guidance and/or stimulation for procedure			
Performs procedure with minimizing patient discomfort			
Clearly communicates the follow up plan			

- PGY1-PGY3 require Direct Supervision
- PGY4 may advance to Indirect Supervision after observed to meet expectations in all areas on 3 UE procedures, 3 LE procedures or 2 Neck/Shoulder procedures

Comments:

Attending Signature

Resident Signature

RETURN all completed forms to the Program Coordinator

**Direct Observation
Joint/Trigger Point Injection**

Resident Name/PGY: _____

Evaluators Name: _____

Date Performed: _____

Site of Intervention: (check all that apply)

- Glenohumeral
- AcromialClavicular
- Bursa _____
- Knee
- Other _____

	Needs Improvement	Meets Expectations	NA
Communicates accurately the intent of the procedure			
Answers all patient or family questions accurately			
Obtains informed consent that includes appropriate explanation of risk and benefits			
Identifies the involved muscle(s)/joint(s) requiring intervention			
Chooses appropriate pharmacological agent(s) and dosing for injection			
Prepares medications appropriately			
Performs a time out to confirm patient identification, dosing and injection plan			
Uses anatomical landmarks to correctly isolate muscle(s)/joint(s) intended for injection			
Appropriately uses Ultrasound guidance to identify anatomic landmarks and guidance for injection			
Performs procedure with minimizing patient discomfort			
Clearly communicates the follow up plan			
Documents procedure appropriately in the medical record			

- PGY1 requires Direct Supervision
- PGY2 or above may advance to Indirect Supervision after observed to meet expectations in all areas on 3 UE and 3 LE procedures
- Only PGY4 may be approved to provide supervision

Comments:

Attending Signature

Resident Signature

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