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A P&S Report Checklist ✓: Upper Extremities Peripheral Nerve Disorders (PND) Brachial Plexus

To Rate Impairment, Neuropathy needs to be present On The Date Of Examination For The MMI/P&S Report.

Entrapment/compression neuropathies are rated when an objective verifiable diagnosis is present, supported by positive clinical findings and loss of function. AMA 5th Ed., 493

Upper Extremities PND: Upper extremity impairments due to sensory deficits or pain resulting from peripheral nerve disorders are determined according to the grade of severity in diminution or loss of function and the relative maximum upper extremity impairment value of the nerve structure involved, as shown in the classification (a) and procedural (b) steps described in Table 16-10 and the impairment determination method detailed in Section 16.5b. Table 16-10 is to be used for pain that is due to nerve injury or disease that has been documented with objective physical findings and/or Electrodiagnostic abnormalities. AMA 5th Ed, pg 482:

AMA Guides Clinical & Rating Criteria (Substantial Medical Evidence Standards)	Yes ✓	No ✓	Reported Medical Findings Med Rpt., pgs.
1. **Nerve Conduction Velocity Test** (Nerve Conduction Study) measures how quickly electrical impulses move along a nerve. It is often done at the same time as an electromyogram, in order to exclude or detect muscle disorders.			
1.1. Results of Sensory NCS?			
1.2. Results of Motor NCS?			
1.3. Were motor and sensory latencies, conduction velocities, H reflex & F wave properly evaluated?			
1.4. Decreased Amplitudes?			
1.5. Has physician tested all the muscles of the upper extremities, tested sensation and reflexes?			
2. **Electromyogram (EMG)** is a test that measures the electrical activity of a muscle. It detects any signs of blocking or slowing down of responses to nerve stimulation. The test provides information about the muscle itself and shows how well it receives stimulation from the nerve. A nerve conduction velocity (NCV) test is often done at the same time as an EMG.			
2.1. Degree of nerve involvement identified as per the electrodiagnostic studies?			
2.2. Do the EMG studies confirm motor function of a specific muscle or group of muscles? AMA 5th Ed, pg 484			
2.3. Does the EMG provide objective evidence to support the symptoms and findings; confirmation of nerve injury?			
3. Are symptoms related to PND permanent impairment present? (Weakness, sensory abnormalities and pain.)			
4. Has physician established an accurate diagnosis by confirming the presence (absence) of specific pathology and symptoms with the use of appropriate neurological testing?			
5. Diagnosis confirmed by electrodiagnostic studies (needle & cutaneous) as well as sensory and motor nerve conduction studies conducted by a Board Certified Neurologist?			
6. As per clinical/records history, are prior symptoms and complaints corresponding to the part of the nervous system that is presumed to be affected by the particular vocational injury?			
7. Is the contralateral asymptomatic or symptomatic?			
8. Have both the Nerve Conduction Studies / EMG tests ruled out other pathologic nerve compression?			
8.1. Alternatively, are the studies indicative of non-vocational underlying polyneuropathy?			
9. Clinical Neurological Evaluation and ancillary clinical testing have been correlated to the electromyographic studies? (Results from multiple provocative tests reproduce symptoms.)			

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AMA Guides Clinical & Rating Criteria (Substantial Medical Evidence Standards)	Yes ✓	No ✓	Reported Medical Findings Med Rpt., pgs.
9.1. Is the Impairment rating only based on a single diagnostic/ancillary test?			
9.2. Evaluating physician explains how the rating was derived?			
9.3. List tables, figures used and refers to AMA 5th Ed., page numbers?			
10. **LC § 4663 Causation Apportionment -** Physician addresses the probability that 'evoked' responses are the result of a non-vocational disease processes; e.g., due to a disease affecting the spinal cord, degenerative disc disease, motor neuron disease, genetically determined disorders or polyneuropathy.			
10.1. Evaluator apportions to pre-existing/predisposing or associated conditions?			
10.2. Tumors, compression or irradiation have been also considered as causation?			
10.3. Diabetes or Thyroid?			
10.4. Congenital cervical rib?			
10.5. Impingement from carrying a heavy shoulder bag or bad posture?			
10.6. Additional Causes: http://www.thebodyworker.com/thoracicoutletsyndrome.htm			
Symptoms Brachial Plexus: Symptoms may include a limp arm, lack of muscle control in the arm, hand or wrist and lack of feeling or sensation in the arm or hand. Total brachial plexus paralysis is manifested by flail arm, paralysis of all muscles of the hand, and no sensibility. Sudorific function is intact when the lesion is preganglionic. A lack of spontaneous movements of the affected extremity and differences in reflex responses help to distinguish the type of injury. Patient with a brachial plexus injury will usually present with arm internally rotated, abducted and wrist somewhat flexed, depending on level of lesion. Scapular winging is a common problem of all brachial plexus injuries due to impairment of the long thoracic nerve. Phrenic nerve damage can also occur in brachial plexus injury.			
11. **Testing Standards**: AMA 5th Ed, pg. 10, 307, 493 & AMA Disability Evaluation page 459 Are any of the following findings for individual with Brachial Plexus injuries present:			
11.1. Arm Internally Rotated, abducted?			
11.2. Flexed Wrist (Depends on lesion level)?			
11.3. Scapular winging (long thoracic nerve damage)?			
11.4. Soft Tissue or Joint Contractures?			
11.5. Frozen Shoulder?			
11.6. Dislocated Shoulder or Elbow?			
11.7. Tested Area has met required standards?			
C5-C6 Upper Trunk Nerve Roots: Upper Trunk Paralysis is know as Erb-Duchenne Palsy.			
12. Is the arm hanging in adduction and internal rotation with the elbow in extension and the forearm in pronation?			
13. **Motor Strength:** The biceps, deltoid, brachialis, supraspinatus, infraspinatus and rhomboid muscles are paralyzed; the triceps, pectoralis major and extensor carpi radialis brevis and longus muscles are weak. Most finger movements are intact. **Muscles To Test:**			
13.1. C5 –Supraspinatus, Infraspinatus, Shoulder Abduction (Deltoid), Elbow Flexion (Biceps)?			
13.2. C6 – Elbow Flexion (Biceps), supinator, wrist extensors?			
13.3. C7 – Elbow Extension (Triceps), wrist flexors?			

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13.4. C8 – Ulnar deviation, thumb extension, finger flexion and abduction?			
13.5. T1 medial aspect of the upper arm?			
13.6. Does the physician localize and grade the magnitude of the decreased strength for each affected muscle?			
13.7. Has physician identified the nerves innervating all the muscle groups examined, describing which are weak and which are not?			
14. **Sensory Deficits**: (AMA, Figure 16-49, page 490) Sensory deficit in the C5 and C6 dermatomes is present in:			
14.2. C4 Shoulder Tip?			
14.3. C5 Deltoid area, anterior aspect of the entire arm to base of thumb?			
14.4. C6 Anterior Arm, radial side of the hand to thumb and index finger?			
14.5. C7 Lateral Arm & forearm to index, long and ring fingers?			
14.6. C8 Little Finger?			
14.7. T1 medial aspect of the upper arm?			
15. **Reflexes**:			
15.1. C5 Biceps (Brachioradialis)			
15.2. C6 Biceps (Brachioradialis)			
15.3. C7 Triceps			
16. **C7 Middle Trunk Nerve Root:** Injuries are rare, except as a result of intrascalene anesthetic block. Middle Trunk (C7) injuries are often associated with coexisting upper or lower trunk injury.			
17. C8-T1 Lower Trunk Nerve Roots: Lower trunk paralysis is known as Dejerine-Klumpke Palsy.			
17.1. **Motor Strength:** (Horner syndrome (ptosis, myosis, enophthalmos) if the T1 root is avulsed from the spinal cord.)			
17.2. Paralysis of all intrinsic muscles of the hand?			
17.3. Loss of opposition of thumb?			
17.4. Weakness of the flexor carpi ulnaris and flexor digitorum profundus of the little finger?			
17.5. Clawing of fingers 3 & 4: Loss of following finger movements: abduction and adduction of M.P. joints; flexion at M.P. & extension of I.P. joints?			
17.6. Loss of abduction & adduction of M.P joints of fingers?			
17.7. Thumb - abducted and extended?			
17.8. Loss of adduction of thumb?			
17.9. Loss of flexion of D.I.P. joints of fingers 4 & 5?			
17.10. Very weak flexion of P.I.P.& D.I.P. joints?			
18. **Sensory Deficits:** Sensory deficits of the C8 & T1 dermatomes.			
18.1. Diminished sensation ulnar and dorsal aspect of palm and of ulnar 1 1/2 digits?			
18.2. Thenar branch of Median nerve?			
19. Deep branch of Ulnar & Median ?			