



Guidance document for processing PM-JAY packages

Brachial plexus injury

Procedures covered: 2

Specialty: Neurosurgery

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)
Brachial Plexus – Repair	Brachial Plexus – Repair	S800024	SN045A	27,000
Peripheral Nerve Surgery	Major	S800076	SN049B	30,000

ALOS: 4 Days

Minimum qualification of the treating doctor:

Essential: MCh/DNB/Equivalent (in Neurosurgery)

Special empanelment criteria/linkage to empanelment module: Care at Tertiary Hospital

Disclaimer:

For monitoring and administering the claim management process of **Brachial plexus - repair/Peripheral Nerve Surgery (Major)**, NHA shall be following these guidelines. This document has been prepared for guidance of PROCESSING TEAM and TRANSACTION MANAGEMENT SYSTEM of AB PM-JAY for the claims of procedures mentioned above. The hospitals can also refer to this document so that they have the insight on how the claims will be processed. However, this document doesn't provide any guidance on clinical and therapeutic management of patient. In that respect the hospitals and physicians may refer to any other relevant material as per the extant professional norms.

PART I: GUIDELINES FOR CLINICIANS AND HEALTHCARE PROVIDERS

1.1 Objective:

The purpose of this section is to act as a guidance & a clinical decision support tool for the clinicians in deciding the line of treatment, plan clinical management of patient and decide referral of cases to the appropriate level of care (as required) for treatment of patients under PMJAY and selection of corresponding Health Benefit Package.

It will also serve as a tool for hospitals to determine and submit the mandatory documents required for claiming reimbursement of health benefit package under PMJAY.

1.2 Clinical key pointers:

- The brachial plexus lies in the neck and consists of a group of combining nerve roots that eventually divide again to form peripheral nerves.
- These nerves are responsible for movement and sensation in the shoulders, arms, forearms and hands, and some muscles of the back and chest.

- Traumatic injuries are the most common cause of brachial plexus lesions in children and adults
- Nontraumatic brachial plexopathies include neuralgic amyotrophy, hereditary brachial plexopathy, neoplastic and radiation-induced plexopathy, thoracic outlet syndrome (TOS), and brachial plexopathy related to diabetes

Symptoms and diagnosis

- Symptoms of injury to the nerves of the brachial plexus vary depending upon which nerves are affected. Diagnosis depends on the symptoms.
- **Upper plexus lesion**
 - The condition is caused by prolonged pulling on the arm at birth (Erb-Duchenne paralysis) or falls on the shoulder.
 - Paralysis in the deltoid, supraspinatus and infraspinatus muscles causes weak shoulder, while paralysis in the biceps and brachioradialis prevents movement of the elbow.
- **Posterior cord lesion**
 - The condition causes paralysis of the following muscles: deltoid (shoulder), triceps (straightens the elbow), extensor carpi radialis and ulnaris (straightens wrist), and extensor digitorum (straightens fingers).
 - The injury prevents patients from straightening the affected arm, forearm and hand.
- **Lower plexus lesion**
 - Caused by forced outstretch of the shoulder and arm at birth (Klumpke's paralysis) or trauma, the condition causes paralysis of certain hand muscles.
 - Symptoms include a claw hand, sensory loss in the lower trunk, and Horner's syndrome. Symptoms of the syndrome include drooping eyelid, contracted pupils, absence of sweating and receding eyeball.
- **Complete brachial plexus injury**
 - The condition results in a completely paralyzed arm with no sensation.

Treatment

- Most injuries cause maximum symptoms at the time of the injury.
- The type of surgical intervention is dependent upon the nature and degree of the lesion, and includes neurolysis, nerve grafts, nerve transfers, and tendon and muscle transfers
- Vascular injury can cause worsening of symptoms and needs to be addressed quickly to prevent ongoing deterioration. Treatment depends on the type of injury:
 - **Laceration**
 - Nerves damaged by clean, sharp, relatively fresh lacerations, such as those from a knife wound, should be surgically reconnected within 72 hours.
 - Penetrating injuries with severe or complete loss of sensation should be explored as soon as the primary wound heals.
 - **Gunshot wounds**
 - Gunshots usually damage the nerves due to the vibratory effect of the bullet and rarely divide the nerves.
 - Surgery is of little benefit to these lesions and chances of full or partial recovery is small.
 - **Stretching**
 - Injuries related to stretching of the nerves will usually recover spontaneously within four months.
 - Injuries with symptoms that continue after four to six months should be investigated surgically.

1.3 Mandatory documents- For healthcare providers

Following documents should be uploaded by the concerned hospital staff at the time of pre-authorization and claims submission:

Mandatory document	Brachial plexus - repair	Peripheral nerve Surgery (Major)
i. At the time of Pre-authorization		
Clinical notes	Yes	Yes
Clinical Evaluation	Yes	Yes
Electromyography (EMG)	Yes	Yes
Nerve conduction studies	Yes	Yes

Planned line of treatment	Yes	Yes
ii. At the time of claim submission		
Detailed Indoor case papers (ICPs)	Yes	Yes
Detailed Procedure / operative notes	Yes	Yes
Intra-operative photographs (optional)	Yes	Yes
In case of accidents – FIR (optional)	Yes	Yes
Detailed discharge summary	Yes	Yes

PART II: GUIDELINES FOR PROCESSING TEAM

PART III: GUIDELINES FOR IT

3.1 Objective: To enable setting up of cross check mechanisms / rule engines within the IT platform (TMS) to ensure compliance with STGs and to prevent fraud / abuse of the Health Benefit Package.

3.2 Below mentioned are the scenarios where a provision would be built in TMS for pop-ups:

- I. Was clinical presentation, history and imaging indicative of surgery? Yes
- II. Was FIR done in case of accidental/traumatic injuries? Yes/Not applicable

Till the time the functionality is being developed, the processing doctors shall check the above manually.

References

1. Clinical protocol guidelines. Mahatma Jyotiba Phule Jan Arogya yojana. Maharashtra <https://www.jeevandayee.gov.in/MJPJAY/RGJAYDocuments/NEUROSURGERY.pdf>
2. <https://www.uclahealth.org/neurosurgery/brachial-plexus-injury>
3. Mark B Bromberg. Brachial plexus syndromes – UpToDate. Last updated: November 2019.