



Guidance document for processing PM-JAY packages

Spinal Hematoma

Procedures covered: 4

Specialty: Neurosurgery

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)	ALOS
Spine - Extradural Haematoma	Spine - Extradural Haematoma	S800032	SN039A	30,000	5 days
Spine - Extradural Haematoma	Spine - Extradural Haematoma with fixation	S800033	SN039B	30,000 + Implant cost	7 days
Spine - Intradural Haematoma	Spine - Intradural Haematoma	S800036	SN040A	40,000	5 days
Spine - Intradural Haematoma	Spine - Intradural Haematoma with fixation	S800037	SN040B	40,000 + Implant cost	7 days

Minimum qualification of the treating doctor:

Essential: MCh/DNB/Equivalent in (Neurosurgery), involvement of other specialty based on Etiology

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

Disclaimer:

For monitoring and administering the claim management process of **Spine - Extradural and Intradural Haematoma**, 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:

Spinal hematomas are an important clinical entity, as they have the potential to cause lasting neurologic damage and disability if they are not recognized and treated expeditiously.

Spinal hematomas are divided into four types, according to their location:

- Epidural hematomas
- Subdural hematomas
- Subarachnoid hematomas
- Intramedullary hematomas

Spinal hematomas are often idiopathic; however, other common causes include trauma, iatrogenic diagnostic or pain management interventions, vascular malformations, and coagulopathy or anticoagulant medications.

These conditions may manifest with symptoms of back pain and neurologic deficits, related to the level of the cord affected, although subarachnoid hemorrhage may uniquely manifest with meningitis symptoms as well.

Although smaller hematomas may be managed conservatively, the neurologic deficits are often reversible if diagnosed and treated early with surgical decompression. To allow the best clinical outcome, early diagnosis and recognition are essential for proper conservative or operative treatment and to prevent progression to paraplegia or quadriplegia

SPINAL EPIDURAL HEMATOMA

Spinal epidural hematoma is the most common intraspinal hematoma but remains a rare condition, with an estimated incidence of 0.1 per 100000 per year.

Causes

- The valveless state of the epidural venous plexus is thought to predispose it to rupture with sudden changes in pressure.
- An additional consideration is the rupture of small arterioles in the epidural space
- Additional causes include coagulopathy, trauma, and iatrogenic causes from interventional pain management procedures
- Intra-tumoral hemorrhage within epidural spread of tumor can also result in epidural hematoma

Clinical Manifestations

- The initial clinical manifestation depends on the spinal levels involved and is characterized by acute onset of back pain with progressive neurologic deficits, most commonly involving the cervicothoracic or thoracolumbar region.

- Neurologic symptoms may manifest as radicular pain and weakness, paraplegia, or quadriplegia.

Management

- In patients with symptoms of spinal compression, emergent decompression and evacuation is warranted.
- This is most commonly performed using a decompressive laminectomy, although laminoplasty is an alternative technique for the cervical spine, thereby negating the need for a combined fusion procedure.
- Some cases of small epidural hematomas without progressive neurologic symptoms may be treated conservatively.
- The goal is to perform decompression within 6–12 hours to prevent permanent neurologic sequelae

INTRAMEDULLARY HEMATOMA

Intramedullary hemorrhage or hematomyelia involves blood products within the substance of the spinal cord, which may occur directly within the cord parenchyma, within a syrinx, or both.

Causes

- Traumatic cord contusion with hemorrhage is the most common cause of intramedullary hematoma
- Other important causes include neoplasm, vascular malformation, coagulopathy, and iatrogenic procedures

Clinical Manifestations

- Patients may present with acute severe back or neck pain
- Objective neurologic deficits vary depending on the location and include several specific manifestations, such as anterior cord syndrome, central cord syndrome, conus medullaris syndrome, and Brown-Séquard syndrome

Management

- Although the neurologic status of the patient is paramount to the therapeutic decision, imaging findings are relevant to treatment planning in patients with traumatic intramedullary hemorrhage.
- When treatment is necessary, it consists of cervical or thoracic laminectomy followed by durotomy and myelotomy, after which the hematoma cavity is thoroughly evacuated and irrigated.

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	Spinal Extradural / Intradural Hematoma	Spinal Extradural / Intradural Hematoma (with fixation)
i. At the time of Pre-authorization		
Clinical notes with evaluation findings, indication of procedure, and planned line of management	Yes	Yes
Indication of implant requirement	--	Yes
CT/MRI Spine	Yes	Yes
ii. At the time of claim submission		
Detailed Indoor case papers (ICPs)	Yes	Yes
Detailed Procedure / operative notes	Yes	Yes
Post-op X-ray Spine	Yes	Yes
Post-operative photographs (optional)	Yes	Yes
Implant details (invoice/barcode)	--	Yes
Detailed discharge summary	Yes	Yes

PART II: GUIDELINES FOR PROCESSING TEAM

2.1 Objective: To provide guidance to the pre-authorization and claims processing team in ascertaining the medical necessity of procedure carried out vis a vis the patient's medical condition as evidenced by supporting documents/investigation reports etc., in deciding the admissibility and quantum of claim and compliance with mandatory documents by the hospital.

2.2 Following mandatory documents to be diligently reviewed by the pre-auth / claims processing personnel:

2.2.1 At the time of pre-authorization processing- For pre-authorization processing doctor (PPD):

- Clinical notes - detailed history, signs & symptoms, planned line of treatment, indication for procedure?
- Did clinical evaluation and imaging confirm the diagnosis?

2.2.2 At the time of claim processing- For claims processing doctor (CPD)



- a. Are the detailed ICPs with daily vitals and treatment details?
- b. Are the detailed procedure / Operative Notes available?
- c. Implant invoice/barcode if applicable?
- d. Was the CT/MRI Spine report indicative of surgery?
- e. Is the Discharge summary with follow-up advise at the time of discharge?

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 and imaging indicative of surgery? Yes

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

References

1. Pierce JL, Donahue JH, Nacey NC, et al. Spinal Hematomas: What a Radiologist Needs to Know. *Radiographics*. 2018;38(5):1516-1535. doi:10.1148/rg.2018180099
2. Mark S. Greenberg. Handbook of Neurosurgery. Eight Edition. 2016. Thieme.