



Guidance document for processing PM-JAY packages

External Ventricular Drainage (EVD) / Ventricular Puncture

Procedures covered: 2

Specialty: Neurosurgery

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)	ALOS
External Ventricular Drainage (EVD) including antibiotics	External Ventricular Drainage (EVD) including antibiotics	S800062	SN020A	30,000	5-7 days
Ventricular Puncture	Ventricular Puncture	S800044	SN021A	15,000	3 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 **External Ventricular Drainage (EVD)/Ventricular Puncture**, 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:

External Ventricular Drains (EVDs) are a temporary system and often emergency or urgent procedure which allow drainage of cerebrospinal fluid (CSF) from the lateral ventricles of the brain in patients with neurological injury or deterioration from progressive hydrocephalus is imminent.

Indications:

- Therapeutic (To relieve raised ICP)



- Hydrocephalus (communicating and non-communicating)
 - Surgical Mass lesions
 - Infections (pyogenic and tuberculous)
 - Chiari Malformations
- Subarachnoid hemorrhage resulting in acute hydrocephalus
- Shunt failure due to mechanical disruption or infection
- Brain relaxation in the OT, etc.
- Intracranial Pressure monitoring

Contraindications

- Concurrent use of anticoagulant drugs
- Bleeding disorders
- Scalp infection
- Brain abscess

Common clinical presentation

- Vomiting
- Altered sensorium
- Drowsiness
- Seizure
- Generalized tonic clonic convulsions
- Headache

Complications of EVD

- EVD Infections
- Non-infectious complications
 - Aneurysmal re-bleeding and hemispheric shifts from reduction in ICP
 - Set the level based on the indication for the EVD
 - CSF over drainage
 - Monitor the CSF drainage (every 4th hourly)
 - Monitor the ICP frequently
 - Set the level as per the ICP value
 - Hemorrhage and misplacement complications
 - CT scan after EVD insertion
 - Call for help if first tap is dry
 - 2 taps is the maximum limit

Removal of the EVD

- Close monitoring of the clinical status and the ICP of the patient
- When the primary pathology has been dealt with
- Slowly raise the height of the level at which the EVD is set for drainage
- Monitor Glasgow coma scale score (GCS) and ICP. Periodic CT scans should be done
- If patient responds well – Clamp EVD for 2 hours and then remove EVD in the clamped position
- If ICP rises or patient's GCS deteriorates – open EVD and consider Ventriculo-peritoneal (VP) shunt

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	External Ventricular Drainage (EVD)	Ventricular Puncture
i. At the time of Pre-authorization		
Clinical notes	Yes	Yes
Clinical Evaluation	Yes	Yes
CT/MRI brain	Yes	Yes
Cerebrospinal Fluid (CSF) Analysis	Yes	Yes
Coagulation Profile	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
Post-operative photographs (optional)	Yes	Yes
CT brain (Preop & Post op)	Yes	Yes
Histopathology examination	Yes	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):

- a. Clinical notes including history, symptoms, signs, vitals, examination findings, planned line of treatment and advice for admission?
- b. Did the patient present with vomiting, altered sensorium, drowsiness, seizure, generalized tonic-clonic convulsions, headache?
- c. Was indication for procedure/surgery documented?

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

- a. Are the detailed ICPs with daily vitals and line of treatment?
- b. Are the detailed procedure / Operative Notes available?
- c. Is the Discharge summary with follow-up advise at the time of discharge?
- d. Was CT brain pre and post-surgery report submitted?

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:

- a. Was clinical presentation and imaging indicative of surgery? Yes
- b. Was the patient on/presented with/evidence of:
 - On anticoagulation therapy? No
 - Scalp infection? No
 - Brain Abscess? No

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. Fried HI, Nathan BR, Rowe AS, et al. The Insertion and Management of External Ventricular Drains: An Evidence-Based Consensus Statement : A Statement for Healthcare



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3. Munakomi S, M Das J. Ventriculostomy. [Updated 2020 Jul 4]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK545317/>
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