



Guidance document for processing PM-JAY packages

Hydrocephalus (Surgical management)

Procedures covered: 1

Specialty: Neo-natal Care/ pediatric surgery

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price
Ventriculoperitoneal Shunt Surgery (VP) or Omay Reservoir or External Drainage for Hydrocephalus	Ventriculoperitoneal Shunt Surgery (VP) or Omay Reservoir or External Drainage for Hydrocephalus	M300010	MN010A	5,000

ALOS: 2-3 days

Minimum qualification of the treating doctor:

Essential: MCh/DNB/ equivalent (Neurosurgery)

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

Disclaimer:

For monitoring and administering the claim management process of **Ventriculoperitoneal Shunt Surgery (VP) or Omay Reservoir or External Drainage for Hydrocephalus**, 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.

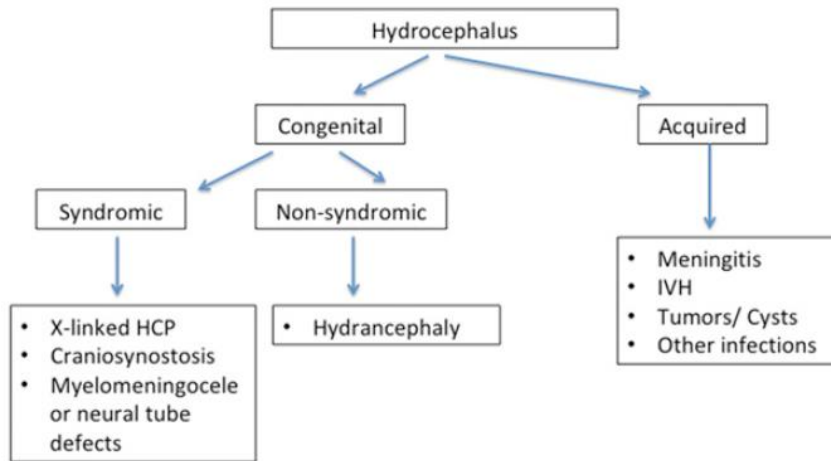
1.2 Clinical key pointers:

Hydrocephalus is one of the most common congenital abnormalities affecting the nervous system, occurring in 0.3 to 2.5 per 1,000 live births. It results from obstruction of cerebrospinal fluid (CSF) pathways by a diverse range of developmental, genetic, and acquired abnormalities

and can have negative consequences on the neurodevelopmental outcome of affected neonates. Hydrocephalus is a clinical diagnosis of cerebrospinal fluid (CSF) accumulation in the ventricles and brain spaces accompanied by an increase in intracranial pressure (ICP).

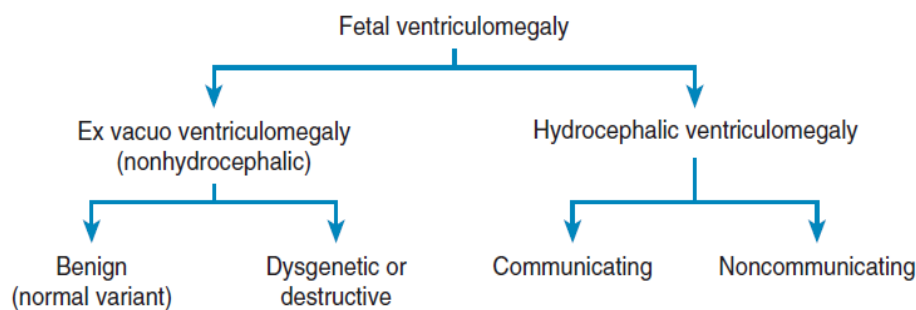
RISK FACTORS/ETIOLOGY

Neonatal hydrocephalus is broadly categorized as congenital or acquired



Categorization of neonatal hydrocephalus (HCP).
IVH=intraventricular hemorrhage.

Congenital hydrocephalus



Classification of fetal ventriculomegaly.

PRESENTATION

Clinical signs of hydrocephalus in the preterm or full-term infant are secondary to increased ICP and include:

- bulging fontanelle
- splayed sutures
- prominent scalp veins



- irritability
- lethargy
- poor feeding
- recurrent vomiting
- high-pitched cry
- seizures
- “sunsetting” eyes

EVALUATION

- Prenatal diagnosis of hydrocephalus can be accomplished by fetal ultrasonography, Plain (non-contrast CT head or magnetic resonance imaging (MRI)
- Postnatal diagnosis and surveillance of hydrocephalus can be accomplished using cranial ultrasonography and/or plain CT head to assess ventricle size and serial head circumference measurement

MANAGEMENT

- The mainstay of management of hydrocephalus is the relief of increased CSF and ICP.
- The options for postnatal treatment of symptomatic hydrocephalus are individualized to the needs of each infant, and require consideration of the comorbidities, overall prognosis, and parental preferences.
- Symptomatic hydrocephalus in newborns with hydrocephalus can be treated with temporary procedures such as a ventricular access device (VAD), or ventriculosubgaleal shunt (VSGS), temporary and potentially permanent interventions such as endoscopic third ventriculostomy (ETV) without or with choroid plexus coagulation (CPC), or permanent ventriculoperitoneal (VP) shunt insertion. The choice of VAD or VSGS is often influenced by institutional history, and the procedures have similar outcomes.
- If elevated ICP is a concern, patients with hydrocephalus are often managed by surgical implantation of a ventriculoperitoneal (VP) shunt, which allows CSF to be diverted from the ventricular system of the brain to the peritoneal cavity. VP shunts typically consist of three main components: a proximal ventricular catheter, a flow-regulating valve (programmable or nonprogrammable), and a distal peritoneal catheter.
- While full-term infants with hydrocephalus can undergo VP shunting, preterm neonates are often too small to tolerate a fully functional shunt, so a temporizing device is needed. In these cases, a ventriculosubgaleal shunt (VSGS) is placed, which diverts CSF from the ventricular system into the subgaleal space of the scalp.

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	Hydrocephalus
i. At the time of Pre-authorization	
Clinical notes	Yes
Clinical picture	Yes
Neurosonogram/CT Brain/MRI Brain	Yes
Planned line of treatment	Yes
ii. At the time of claim submission	
Indoor case papers (ICPs)	Yes
Post-procedure photograph (Optional)	Yes
Detailed Procedure / operative notes	Yes
Detailed discharge summary	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, and indication for procedure?
- Was clinical picture and imaging suggestive of diagnosis?

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

- Are the detailed ICPs with daily vitals and line of treatment?
- Are the detailed laser procedure / Operative Notes available?
- Is the Discharge summary with follow-up advise at the time of discharge?
- Was the Neurosonogram/CT/MRI Brain report indicative of surgery?
- Was post-operative photograph 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 picture and imaging suggestive of diagnosis and indicative of procedure/surgery? Yes

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

References

1. Tracy M. Flanders, Lori Billingham, John Flibotte et al. Neonatal Hydrocephalus. Neo Reviews. 2018;19(8):e467-e477. DOI: 10.1542/neo.19-8-e467
2. Joseph J. Volpe. Volpe's Neurology of the Newborn. Elsevier. Sixth Edition. 2018