



## Guidance document for processing PM-JAY packages

### Meningioma

Procedure covered: 2

Specialty: Neurosurgery

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)
Surgery for tumor meninges	Gocussa	S800042	SN006A	50,000
Surgery for tumor meninges	Posterior	S800043	SN006B	50,000

**ALOS:** 7 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 **Surgery for tumor meninges (Gocussa/Posterior)**, 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:**

Meningioma is the commonest primary central nervous system tumor accounting for about 37.6% of them; and approximately 50% of all benign brain tumors. Meningioma originates from the meningeal layers of either the brain or the spinal cord. Meningioma commonly originates from meningotheial arachnoid cap cells. Most of the meningiomas are sporadic, benign, and slowly growing.

Most intracranial meningiomas are located supratentorial. They are commonly seen in the parasagittal, brain convexity, sphenoid ridge, anterior and posterior parafalcine areas, and

olfactory groove. Other reported locations of intracranial meningiomas include suprasellar, posterior fossa (cerebellopontine), intraventricular, and intra-orbital areas.

Several predisposing factors increase the risk of occurrence, including genetic disorders such as neurofibromatosis type 2, exposure to radiation, hormonal therapy, and family history.

## Classification

These tumors are classified, according to the World Health Organization (WHO).

- Grade I typical meningiomas are low grade tumors and are the most common. This means the tumor cells grow slowly.
- Grade II atypical meningiomas are mid-grade tumors. This means the tumors have a higher chance of coming back after being removed. The subtypes include choroid and clear cell meningioma.
- Grade III anaplastic meningiomas are malignant (cancerous). This means they are fast-growing tumors. The subtypes include papillary and rhabdoid meningioma.

## Clinical Manifestation

- The clinical manifestation is dependent on the location and the size of the meningioma
- Many small meningiomas are found incidentally and are entirely asymptomatic
- Most common presentations include: headache, paresis, visual impairments, anosmia, neurological deficits
- Meningiomas may also become clinically apparent due to mass effect depending on their location:
  - Supratentorial:
    - Parasagittal, convexities - seizures and hemiparesis
    - Sphenoid ridge
    - Olfactory groove/planum sphenoidale - anosmia (usually not recognized), foster kennedy syndrome
    - Juxtapellar – visual field defects, cranial nerve deficits
  - Infratentorial
    - Obstructive hydrocephalus
    - Cranial nerve deficits
  - Miscellaneous intradural: <5%
    - Intraventricular meningioma
    - Optic nerve meningioma
    - Pineal gland - parinaud syndrome, obstructive hydrocephalus

## Management

- **Observation**

Asymptomatic small-sized tumors, as well as patients with cavernous sinus meningiomas, can be followed up with close observation annually or biennially. The follow up should include serial imaging, usually with brain MRI.

- **Surgery**

Symptomatic lesions and those with accelerated growth are primarily treated with maximum gross total surgical resection. The Simpson grade correlates the degree of surgical resection completeness with symptomatic recurrence.

- **Radiation**

External beam radiotherapy or brachytherapy after surgical resection can be used in grade II and III meningiomas. Stereotactic radiosurgery (SRS) is another therapeutic method that can be used for patients who are unfit for surgery. SRS can be used for meningiomas of the skull base, recurrent, or incompletely resected meningiomas.

- **Chemotherapy**

Adjuvant therapies might be required to reduce the recurrence rate in incompletely removed meningiomas and atypical or malignant meningiomas.

## Complications

- Non-surgical: risk of recurrence, increase in size, and accelerated growth. Some meningiomas can get calcified or progress to grade 2 or 3 with a tendency of malignancy, brain invasion, and rarely metastasis.
- Surgical and medical: hematoma, infection, venous thrombosis, CSF leak, risk of injury to surrounding anatomical structures, and worsening of neurological deficits. Other medical complications include aspiration pneumonia, deep vein thrombosis, pulmonary embolism, myocardial ischemia, and stroke.
- Post radiosurgery: risk of cranial nerve deficits, such as optic nerve injury in intracranial meningioma. There is an increasing risk of toxicity due to radiotherapy.

### 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	Surgery for tumor meninges (Gocussa/Posterior)
i. At the time of Pre-authorization	

Clinical notes including evaluation findings	Yes
CT/ MRI Brain	Yes
<b>Optional</b> Digital subtraction angiography (DSA) Positron emission tomography (PET) scan	Yes
Planned line of treatment	Yes
<b>ii. At the time of claim submission</b>	
Detailed Indoor case papers (ICPs)	Yes
Detailed Procedure / operative notes	Yes
Post-op CT Brain	Yes
Histopathological Examination report	Yes
Detailed discharge summary	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, grading and radiological investigations indicative of surgery? Yes

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

### **References**

1. Alruwaili AA, De Jesus O. Meningioma. [Updated 2020 Aug 14]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK560538/>
2. <https://radiopaedia.org/articles/meningioma>