



Guidance document for processing PM-JAY packages

Balloon test occlusion

Procedures covered: 1

Specialty: Interventional Neuroradiology

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)
Balloon test occlusion	Balloon test occlusion	S900011	IN008A	70,000

ALOS: 1 Day

Minimum qualification of the treating doctor:

Essential: DM/Equivalent (in Interventional Neuroradiology), MCh/DNB/Equivalent (in Neurosurgery)

Special empanelment criteria/linkage to empanelment module: Care at Tertiary Hospital with facilities for interventional neuroradiology

Disclaimer:

For monitoring and administering the claim management process of **Balloon Test Occlusion**, 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:

Balloon test occlusion (BTO) is an endovascular procedure in which a balloon is temporarily inflated in an artery in order to evaluate the potential for collateral circulation to compensate for its absence.

BTO can provide valuable information regarding the collateral circulation to the brain prior to therapeutic occlusion. If treatment of these lesions is desired, then accurate estimation of whether the artery is dispensable or not can influence treatment goals (e.g., feasibility of gross

total resection) and even treatment planning (e.g., preoperative endovascular vessel sacrifice, revascularization strategy).

The indications for BTO include:

- Aneurysm or pseudoaneurysm arising from the Internal Carotid artery (ICA) (treatment by permanent ICA occlusion [Hunterian ligation] planned;
- At risk for inadvertent ICA occlusion during a difficult open or endovascular surgical approach); cranial and cervical neoplasms with ICA involvement;
- Hemorrhage related to trauma, infection, or neoplasm;
- Arterial dissection when anticoagulant therapy is contraindicated;
- Carotid-cavernous fistula, which may not be treatable with arterial preservation

During the procedure

BTO is performed with the patient awake to permit assessment of neurological status. If the patient develops any signs and/ or symptoms of transient neurological dysfunction (such as weakness, loss of sensation, speech problems, etc) during the BOT, the balloon is immediately deflated, upon which the indicators of poor collateral circulation usually resolve straightaway. Results can guide on the most appropriate course of therapy.

Complications

- Specific risks associated with this procedure include balloon rupture, which can occur with a defective device or with overinflation.
- Vessel rupture or dissection at the site of balloon inflation is also a risk, and consideration must be given to potentially diseased and previously radiated vessels.
- Attempts to mitigate ischemic complications are focused on frequent neurological monitoring, with any changes prompting immediate deflation of the balloon to restore blood flow.
- Thromboembolic complications are mitigated with the use of systemic heparinization, as flow arrest proximal to the balloon is a nidus for thrombus formation.

The BTO, along with adjunctive nuclear medicine blood flow measurements, serve to increase the pre-procedure probability that permanent occlusion will be tolerated without ischemic complication.

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	Balloon test occlusion
i. At the time of Pre-authorization	
Clinical notes	Yes
Angiogram	Yes
Optional CT/MRI SPECT (Single photon emission computed tomography)	Yes
Planned line of treatment	Yes
ii. At the time of claim submission	
Detailed Indoor case papers (ICPs)	Yes
Detailed Procedure / operative notes including: <ul style="list-style-type: none"> - Clinical Evaluation of the brain function during the procedure - EEG (Electroencephalogram) monitoring during the procedure 	Yes
Intra-procedure photographs (optional)	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:**

- Was clinical evaluation and imaging indicative of performing the procedure? Yes

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

References

- <https://www.sciencedirect.com/science/article/pii/B9780128117408000265>