



Guidance documentfor PM JAY package

Pulmonary Artery Banding

Procedures covered/ Procedure Count: 1

Specialty: CTVS

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)	ALOS
Surgical Correction of Category - I Congenital Heart Disease	Pulmonary Artery Banding	New package	SV001D	100,000	10 days

Minimum qualification of the treating doctor:

Essential: M.Ch./DNB/ equivalent(Cardiothoracic Surgery)

Special empanelment criteria/linkage to empanelment module: Cardiothoracic Surgery OT

Disclaimer:

For monitoring and administering the claim management process of **Pulmonary Artery Banding**, 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:

Congenital heart defects with left-to-right shunting and unrestricted pulmonary blood flow (PBF) due to a drop in pulmonary vascular resistance result in pulmonary overcirculation. In the acute setting, this leads to pulmonary edema and CHF in the neonate. Within the first year of life, this unrestricted flow and pressure can lead to medial hypertrophy of the

pulmonary arterioles and fixed pulmonary hypertension. Pulmonary artery banding creates a narrowing, or stenosing, of the Main pulmonary artery (MPA) that decreases blood flow to the branch pulmonary arteries and reduces PBF and pulmonary artery pressure. In patients with cardiac defects that produce left-to-right shunting, this restriction of PBF reduces the shunt volume and consequently improves both systemic pressure and cardiac output. A reduction of PBF also decreases the total blood volume returning to the left ventricular (or the systemic ventricle) and often improves ventricular function.

Indications

Most of the indications fall into 2 broad categories:

- (1) Those with pulmonary overcirculation and left-to-right shunting who require reduction of pulmonary blood flow (PBF) as a staged approach to more definitive repair
- (2) Those with transposition of the great arteries (TGA), where require training of the left ventricle (LV) as a staged approach to the arterial switch procedure.

Patients in the first category who are considered for pulmonary artery banding include those with the following diagnoses:

- Multiple muscular ventricular septal defects (VSDs) with a "Swiss cheese" septum that is technically difficult to repair in the neonate or requires a ventriculotomy
- Single or multiple VSDs with coarctation of the aorta or interrupted aortic arch
- Single ventricle defects (eg, tricuspid atresia) that are associated with increased PBF in the neonate
- Unbalanced atrioventricular canal (AVC) defects in which the LV is hypoplastic but the potential exists for a 2-ventricle repair with further growth and development
- Cardiac defects that require a homograft conduit (eg, dextrotransposition of the great arteries [DTGA] with subpulmonic stenosis requiring a Rastelli-type repair) for complete repair

Patients in the second category who are considered for pulmonary artery banding include those with the following diagnoses:

- D-TGA that requires preparation of LV for an arterial switch procedure following initial late presentation or diagnosis in patients older than 1 month
- D-TGA that requires preparation of LV for an arterial switch procedure following a previous Mustard or Senning procedure with the development of right ventricular failure or levo-transposition of the great arteries (L-TGA) that requires preparation of the LV prior to the arterial switch procedure

1.3Mandatory 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	Pulmonary Artery Banding
i. At the time of Pre-authorization	
a. Clinical notes	Yes
b. Echo/Doppler report	Yes
ii. At the time of claim submission	
a. Procedure / Operative notes	Yes
b. Post procedure stills of ECHO with report	Yes
c. Detailed Discharge Summary	Yes

PART II: GUIDELINES FOR PROCESSING TEAM

PART III: GUIDELINES FOR TRANSACTION MANAGEMENT SYSTEM (TMS)

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:

1. Was patient Echo/Doppler report showing congenital heart disease requiring pulmonary artery banding? Yes

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

References

- Hoseinikhah H, Moeinipour A, Zarifian A, Sheikh Andalibi MS, Moeinipour Y, AbbasiTeshnisi M, et al. Indications, Results and Mortality of Pulmonary Artery Banding Procedure: a Brief Review and Five- year Experiences. Int J Pediatr 2016; 4(5): 1733-44.