



## Guidance document for PM JAY package

### Supravalvular Aortic Stenosis (AS) repair

**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 - III Congenital Heart Disease	Supravalvular AS repair	New Package	SV003I	150,000 + Cost of implant	12days

#### **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 **Supravalvular AS repair**, 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:**

Aortic stenosis (AS) is most often due to stenosis of the aortic valve (80%–85%), but can also be due to obstruction below the valve (subvalvular, 15%, mostly due to discrete membrane) or above the valve (supravalvular, least common). AS is more common in males. The aortic valve can be unicuspid or bicuspid in patients with valvular AS. Patients with unicuspid aortic valve present commonly in neonatal period with critical stenosis, whereas patients with



bicuspid valve present more commonly during childhood. Supravalvular stenosis is often associated with Williams–Beuren syndrome.

### Diagnosis

- Clinical assessment
- ECG: ECG in supravalvular AS can show features of myocardial ischemia due to associated obstruction of coronary ostia
- Echocardiography: It is the key diagnostic imaging technique for assessing the site and severity of AS (peak-to-peak and mean gradients), morphology of the aortic valve, diameter of aortic annulus, evaluation of left ventricular dimensions, mass and systolic function as well as evaluation of associated lesions such as AR, mitral valve disease, and CoA. Transesophageal echocardiography is useful in patients with suboptimal transthoracic window. It is reasonable to screen first-degree relatives of patients with BAV or unicuspid aortic valve with echocardiography for valve disease and aortopathy.
- CTA/cMRI may be required in older patients with BAV to assess severity of aortopathy and in select cases of supravalvular AS.

### Supravalvular aortic stenosis: Surgical intervention indicated in:

Symptomatic patients with peak instantaneous gradient  $\geq 64$  mmHg and/or mean gradient  $\geq 50$  mmHg on echo-Doppler (Class I)

- Patients with mean Doppler gradient  $< 50$  mmHg, if they have any of the following (Class I):
  - Symptoms attributable to obstruction (exertional dyspnea, angina, and syncope)
  - Left ventricular systolic dysfunction attributable to obstruction
  - Severe left ventricular hypertrophy attributable to obstruction
  - Evidence of myocardial ischemia due to coronary ostial involvement
- Asymptomatic patients with mean Doppler gradient  $\geq 50$  mmHg may be considered for surgery when the surgical risk is low (Class IIb).
- All patients with AS must be advised to maintain good oro-dental hygiene.

### 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	Supravalvular AS repair
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<b>i. At the time of Pre-authorization</b>	
a. Clinical notes	Yes
b. Echo/Doppler report	Yes
<b>ii. At the time of claim submission</b>	
a. Indoor case papers	Yes
b. Procedure / Operative notes	Yes
c. Post procedure stills of ECHO with report	Yes
d. 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:**

<b>Mandatory document</b>	<b>Supravalvular AS repair</b>
<b>i. Pre-auth processing Doctor (PPD)</b>	
a. Clinical notes - detailed history, signs & symptoms, indication for procedure	Yes
b. Was the Echo/ Doppler report suggestive of Supravalvular Aortic Stenosis?	Yes
<b>ii. Claims processing Doctor (CPD)</b>	
a. Are the indoor case papers submitted?	Yes
b. Are the detailed Procedure / Operative notes submitted?	Yes
c. Does the Post procedure still of ECHO show repair of the defect?	Yes
d. Is there a Detailed Discharge Summary mentioning date of follow-up submitted?	Yes

## **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 the Echo/ Doppler report suggestive of Supravalvular Aortic Stenosis? Yes

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

## References

1. Saxena A, Relan J et al Indian guidelines for indications and timing of intervention for common congenital heart diseases: Revised and updated consensus statement of the Working group on management of congenital heart diseases. Ann Pediatr Card 2019;12:254-86
2. Kouchoukos NT, Blackstone EH, Hanley FL, Kirklin JK. Kirklin/Barratt-Boyes Cardiac Surgery: Expert Consult-Online and Print (2-Volume Set). Elsevier Health Sciences; 2012 Oct 26.
3. Mavroudis C, Backer C. Pediatric cardiac surgery. Blackwell Publishing Ltd; 2013 Feb 28.