



Guidance document for PM JAY package

Sinus of Valsalva aneurysm repair

Procedures covered/ Procedure Count: 2

Specialty: CTVS

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)	ALOS
Surgical Correction of Category - II Congenital Heart Disease	Sinus of Valsalva aneurysm repair with aortic valve procedure	New Package	SV002M	120,000 + Cost of implant	10days
Surgical Correction of Category - II Congenital Heart Disease	Sinus of Valsalva aneurysm repair without aortic valve procedure	New Package	SV002N	120,000 + Cost of implant	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 **Sinus of Valsalva aneurysm repair with aortic valve procedure & Sinus of Valsalva aneurysm repair without aortic valve procedure**, 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:

Sinus of Valsalva aneurysm (SOVA) is an abnormal dilatation of the aortic root located between the aortic valve annulus and the sinotubular junction. This occurs as a consequence of the weakness of the elastic lamina at the junction of the aortic media and the annulus fibrosis.

Clinical features

Patients that have sinus of Valsalva aneurysm may be completely asymptomatic or may present with non-specific complaints, such as dyspnea, chest pain, palpitations, or loss of consciousness. Physical exam findings are usually not present unless an aneurysm is large or has ruptured. The classic finding on auscultation is a continuous sawing-like murmur that occurs over both heart sounds. There may be a diastolic decrescendo murmur suggestive of aortic regurgitation. In advanced stages, congestive heart failure may occur.

Diagnosis

Cardiac computed tomography (ECG gated) is the investigation of choice for quantifying size and morphology of sinus of Valsalva aneurysm. Echocardiography, usually transesophageal, will demonstrate flow and hemodynamic significance if rupture is suspected. Cardiac MRI will demonstrate anatomy as well as hemodynamic significance as well.

Management

Ruptured sinus of Valsalva aneurysm traditionally requires surgical management, although endovascular closure devices have been used with good outcomes. Surgical management of sinus of Valsalva aneurysm is preferred when there is significant aortic regurgitation or a ventricular septal defect

Non-ruptured sinus of Valsalva aneurysm should be surgically repaired if there is associated with significant symptoms or are rapidly enlarging. The 2010 American Guidelines for Thoracic Aortic Disease recommend surgical repair to be considered in those with aneurysms greater than 5.5 cm, greater than 5 cm in those with bicuspid valves, and greater than 4.5 cm in the setting of connective tissue disease. Sinus of Valsalva aneurysm repair should be considered when there is a growth rate of more than 0.5 cm/year.

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	Sinus of Valsalva aneurysm repair with aortic valve procedure	Sinus of Valsalva aneurysm repair without aortic valve procedure
i. At the time of Pre-authorization		
a. Clinical notes	Yes	Yes

b. Echo/Doppler report	Yes	Yes
c. Cardiac CT/MRI report	Yes	Yes
ii. At the time of claim submission		
a. Indoor case papers	Yes	Yes
b. Procedure / Operative notes	Yes	Yes
c. Post procedure stills of ECHO with report	Yes	Yes
d. Detailed Discharge Summary	Yes	Yes
e. Barcode of implant, if used	Yes	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:

Mandatory document	Sinus of Valsalva aneurysm repair with aortic valve procedure	Sinus of Valsalva aneurysm repair without aortic valve procedure
i. Pre-auth processing Doctor (PPD)		
a. Clinical notes - detailed history, signs & symptoms, indication for procedure	Yes	Yes
b. Was the patient echo/ Doppler report submitted?	Yes	Yes
c. Was the cardiac Echo/ CT/MRI report suggestive of sinus of valve aneurysm?	Yes	Yes
ii. Claims processing Doctor (CPD)		
a. Are the indoor case papers submitted	Yes	Yes
b. Are the detailed Procedure / Operative notes submitted?	Yes	Yes
c. Does the Post procedure still of ECHO show repair of the defect?	Yes	Yes

d. Is there a Detailed Discharge Summary mentioning date of follow-up submitted?	Yes	Yes
e. Is the barcode of implant if used submitted?	Yes	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 cardiac Echo/ CT/ MRI report suggestive of sinus of valsalva aneurysm? Yes

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

References

1. 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.
2. Mavroudis C, Backer C. Pediatric cardiac surgery. Blackwell Publishing Ltd; 2013 Feb 28.
3. Bass D, Tivakaran VS. Sinus Of Valsalva Aneurysm. [Updated 2020 Jan 15]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-
4. Sarkar M, Wehman B, Mukherjee R, Taylor BS. Left sinus of Valsalva aneurysm presenting as myocardial ischemia. J. Thorac. Cardiovasc. Surg. 2018 Oct 10
5. Chan N, Charalambous M, Fuschetto DP, Fuschetto O, Makaryus JN. Severe compression of the left circumflex coronary artery by a large sinus of Valsalva aneurysm. J Cardiovasc ComputTomogr. 2018 Nov 03