



Guidance document for PM JAY package

Ross Procedure/ Konno Procedure

Packages covered/ package count: 2

Specialty: CTVS

| Package name | Procedure name | HBP 1.0 code | HBP 2.0 code | Package price (INR) | ALOS |
|--|-----------------|--------------|--------------|---------------------------|---------|
| Ross Procedure | Ross Procedure | S1300023 | SV009A | 150,000 + cost of implant | 10 Days |
| Surgical Correction of Category - III Congenital Heart Disease | Konno Procedure | New package | SV003J | 150,000 + cost of implant | 12 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 **Ross Procedure/ Konno 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:

The Ross procedure, is a cardiac surgery procedure in which the diseased aortic valve is replaced with the patient's own pulmonary valve, followed by replacement of the pulmonary valve with a pulmonary homograft. In some children and infants, sometimes and

aortic valve replacement is necessary for a variety of reasons. However, inserting a prosthetic valve is not a good option; firstly there are no small-sized prosthetic valves available and secondly, since the child will grow in size, the prosthetic valve will remain the same size and lead to symptoms of left ventricular outflow tract obstruction. In addition, there are some people who do not want to take oral anticoagulant medications for life and hence a Ross procedure would be ideal for them. Unlike a prosthetic valve, the Ross procedure has excellent hemodynamics, no need for oral anticoagulation and the risk of embolic complications is almost zero. Finally, as the child grows, so does the valve. Unfortunately, it is now realized that the Ross procedure also has limitations; the pulmonary homograft will develop regurgitation or stenosis after 15-20 years, necessitating another procedure.

Indications for the Ross procedure include:

1. Aortic valve disease in children with congenital aortic stenosis (most common indication)
2. Females of childbearing age wanting to bear children in the future with bicuspid aortic valve and small aortic annulus
3. Some variations of left ventricular outflow obstructive disease
4. Native or prosthetic valve endocarditis depending on the extent of disease
5. Some forms of adult aortic regurgitation with a dilated aorta
6. Severe forms of aortic valve disease not amenable to repair

In tunnel-type subvalvular aortic stenosis with a small LV-aortic junction, Konno procedure (aortoventriculoplasty) may be needed. This includes excision and replacement of the aortic valve with a prosthesis, and patch augmentation of ventricular septum to enlarge the left ventricular outflow tract, and then pericardial patch closure of the right ventriculotomy used to gain access to the left ventricular outflow tract.

In cases of recurrent subvalvular aortic stenosis and tunnel-type subvalvular aortic stenosis with the normal LV-aortic junction and aortic valve, modified Konno procedure, in other words, without aortic valve excision and replacement may be performed.

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 | Ross procedure | Konno Procedure |
|--|-----------------------|------------------------|
| i. At the time of Pre-authorization | | |
| a. Clinical notes | Yes | Yes |

| | | |
|--|-----|-----|
| b. Echo/ color Doppler report with stills | Yes | Yes |
| ii. At the time of claim submission | | |
| a. Indoor case papers | Yes | Yes |
| b. Procedure / Operative notes | Yes | Yes |
| c. Post procedure echo/colour Doppler report | Yes | Yes |
| d. Detailed Discharge Summary | 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 | Ross Procedure | Konno Procedure |
|---|-----------------------|------------------------|
| I. Pre-auth processing Doctor (PPD) | | |
| a. Clinical notes - detailed history, signs & symptoms, indication for procedure | Yes | Yes |
| b. Was the Echo/ color doppler report suggestive of Aortic Valve disease/ Left Ventricular Outflow Tract Obstruction (LVOTO)? | Yes | Yes |
| II. Claims processing Doctor (CPD) | | |
| a. Are indoor case papers submitted | Yes | Yes |
| b. Are the detailed Procedure / Operative notes submitted? | Yes | Yes |
| c. Did the post procedure echo/ colour doppler report confirm replacement of aortic valve with pulmonary valve or prosthesis? | Yes | Yes |
| d. Is there a Detailed Discharge Summary mentioning date of follow-up 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 Echo/ color doppler report suggestive of Aortic Valve disease/ Left Ventricular Outflow Tract Obstruction (LVOTO)? 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.