



## Guidance document for PM JAY

### Patent Ductus Arteriosus

**Procedures covered/ procedure count: 2**

**Specialty: Cardiology / CTVS**

Package/ name	Procedure	HBP 1.0 code	HBP 2.0 code	Package price	ALOS
PDA Device Closure		S1200016	MC009A	25,000+ Cost of implant	2 Days
PDA Closure via thoracotomy		S1300046	SV013A	57,000	7 Days

**Minimum qualification of the treating doctor:**

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

**Special empanelment criteria/linkage to empanelment module:**

Package/ Procedure name	Cardiac Catheterization lab	CCU/ ICCU	Qualified cardiologist (DM/ DNB/ equivalent in cardiology)	Qualified cardiothoracic surgeon (MCh/ DNB/ equivalent in cardiovascular thoracic surgery)
i. PDA Device Closure	Yes	Yes	Yes	No
ii. PDA closure via thoracotomy	No	Yes	No	Yes

#### Disclaimer:

“For monitoring and administering the claim management process of PDA Device Closure/ PDA closure via thoracotomy, 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 clinical history of patients with Patent Ductus Arteriosus (PDA) varies from those who are completely asymptomatic to those with severe congestive heart failure or Eisenmenger's syndrome. Surgical management is reserved for cases where medical closure has failed or is contraindicated. Transcatheter occlusion has become the treatment of choice for most patent ductus in children and adults.

Common symptoms and signs of PDA are as follows.

#### **a. Symptoms:**

- Poor feeding
- Failure to thrive
- Palpitations
- Recurrent respiratory infections
- Inability to wean from the ventilator
- Signs of right heart failure in case of Eisenmenger syndrome (swelling of feet, abdominal swelling)

#### **b. Signs:**

- Continuous or systolic murmur
- A low diastolic blood pressure (due to runoff into the ductus during diastole, more frequent in the most premature infants)
- A wide pulse pressure (due to ductus runoff or steal)
- Hypotension (especially in the most premature infants)
- Bounding pulses
- Hepatomegaly
- Signs of Eisenmenger syndrome in case of shunt reversal (cyanosis, increased pulmonary vascular resistance, dyspnea on exertion, syncope, and increased susceptibility to infection)

## Indications for Treatment

The indications for treatment of a symptomatic PDA include respiratory compromise eg, life threatening respiratory tract infections with or without mechanical support, heart failure, or large left-to-right ductus shunt with evidence of hemodynamic compromise, such as reversal of flow in the descending aorta during diastole, oliguria or rising serum creatinine concentration, hypotension, or wide pulse pressure.

## Management

PDA Device Closure (Transcatheter closure) has become the treatment of choice for most patent ductus in children and adults. Although generally associated with greater pain and morbidity than transcatheter methods, surgical ligation and surgical division are safe and effective procedures that historically have set a high standard by which transcatheter techniques have been judged. Surgical ligation or division of the PDA remains the treatment of choice for the rare very large ductus. Rarely, a large, window-type PDA may have insufficient length to permit ligation, and the appropriate surgical procedure is patch closure on cardiopulmonary bypass.

### 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	PDA Device Closure	PDA Closure via Thoracotomy
<b>i. At the time of Pre-authorization</b>		
a. Clinical notes	Yes	Yes
b. Detailed Echo/ Doppler report	Yes	Yes
<b>ii. At the time of claim submission</b>		
a. Procedure / Operative notes	Yes	Yes
b. Post Procedure Echo/Doppler	Yes	Yes
c. Detailed Discharge Summary	Yes	Yes
d. Invoice/ barcode of blade / device used	Yes	No

## **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 Patent Ductus Arteriosus? Yes

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

### References

1. Gillam-Krakauer M, Reese J. *Diagnosis and Management of Patent Ductus Arteriosus. Neoreviews. 2018;19(7):e394-e402.*
2. Douglas J. Schneider and John W. Moore. *Patent Ductus Arteriosus. Circulation AHA. 2006;114: e1873-82*