

Guidance document for processing PM-JAY packages

Retinopathy of prematurity

Procedures covered: 3

Specialty: Neo-natal Care/Ophthalmology

Package name	Procedures name	HBP 1.0 code	HBP 2.0 code	Package price (INR)
Laser Therapy for Retinopathy of Prematurity (Irrespective of no. of eyes affected) - per session	Laser Therapy for Retinopathy of Prematurity (Irrespective of no. of eyes affected) - per session	M300008	MN008A	1,500
Advanced Surgery for Retinopathy of Prematurity	Advanced Surgery for Retinopathy of Prematurity	M300009	MN009A	15,000
ROP Laser - Per Eye	ROP Laser - Per Eye	S300037	SE030A	5,000

ALOS: Laser – 1 day/ Surgery– 3-5 days

Minimum qualification of the treating doctor:

Essential: MS/MD/ DNB/ equivalent (Ophthalmology) with specialist training in Retina/ ROP

Special empanelment criteria/linkage to empanelment module: Care at District/Tertiary Hospital (SNCU/NICU), Eye hospital/SNCU-NICU/District Early Intervention Centre (DEIC) for follow up

Disclaimer:

For monitoring and administering the claim management process of **Retinopathy of prematurity**, 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:

Retinopathy of Prematurity (ROP) is a retinal disorder of low birth weight premature infants. It can be mild with no visual defects, or it may become aggressive with new vessel formation (neo-vascularisation) and progress to retinal detachment and blindness. The stimulus for the abnormal growth of blood vessels comes from the peripheral immature retina.

Classification of ROP:

- International Classification of ROP (ICROP) is used for classifying ROP
- ROP is categorised based on the
 - Severity of the disease into stages (0-5)
 - Location of the disease into 3 zones (Zone 1-3)
 - Extent of the disease based on clock hours (1-12) and the presence of plus disease

RETINOPATHY OF PREMATUREITY

WHOM TO SCREEN?

Gestation < 34 weeks or Birth weight < 2000 grams

Any preterm infant with risk factors:

- Cardiorespiratory support
- Chronic lung disease
- Exchange transfusion
- Poor post-natal weight gain
- Prolonged oxygen requirement
- Blood transfusion
- Intraventricular haemorrhage
- Respiratory distress syndrome
- Sepsis
- Apnea

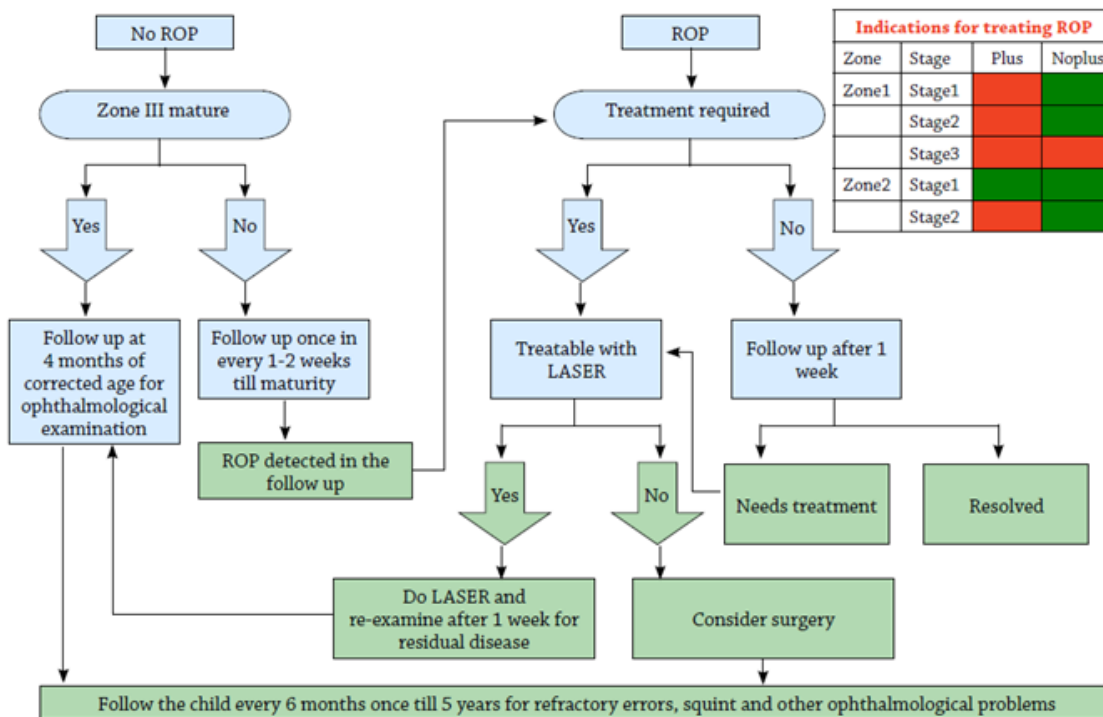
PREVENTIVE FACTORS

- Antenatal steroids
- Restrict use of Oxygen
- If baby on Oxygen target SpO₂ between 90-95%
- Use CPAP when required
- Early enteral nutrition (breast milk preferred)
- Aggressive nutrition therapy
- Following aseptic precautions
- Restrictive blood transfusion policy

AGGRAVATING FACTORS

- Small for gestational age
- Uncontrolled Use of Oxygen
- Patent ductus arteriosus
- Sepsis
- Inadequate weight gain
- Prolonged ventilation
- Transfusion of blood products

Initial Screen at 4 Weeks (30 Days) of Birth. Infants with period of gestation less than 28 weeks or weighing less than 1200 gms, first screening to be done at 2-3 weeks after birth.



The following are the recommended follow up intervals for the infants at risk

1. No signs of ROP:

Follow up examination for infants at risk should be done 2-3 week intervals until the retina is fully vascularised.

2. If ROP is present:

Zone of retinal findings	Stage	Follow up interval
Zone 1	Immature vasculature	1-2 weeks
	Stage 1 or 2	1 week or less
	Regressing ROP	1-2 weeks
Zone 2	Immature vasculature	2-3 weeks
	Stage 1	2 weeks
	Stage 2	1-2 weeks
	Stage 3	1 week or less
	Regressing ROP	1-2 weeks
Zone 2	Stage 1 or 2	2-3 weeks
	Regressing ROP	2-3 weeks

Management of ROP

The principle of treatment is to remove the stimulus for growth of abnormal new blood vessels by ablating the peripheral avascular retina. This will in turn reduce the incidence of retinal detachment and consequent blindness. The treatment involves ablation of peripheral avascular retina and thereby abolishing hypoxic drive of retina (mediated by over-expression of vascular endothelial growth factor; VEGF). This results in regression of established ROP.

Types of treatment:

The aim of treatment is to reduce the incidence of retinal detachment and blindness.

1. Laser therapy

Indications of laser procedure:

- Currently laser is the standard treatment for ROP. Laser is to be done according to the ET-ROP (Early Treatment for ROP) guidelines
- Once decided laser is to be applied within 48 hours of diagnosis
- If the diagnosis is aggressive posterior ROP (APROP) laser is to be done as soon as possible

2. Treatment of advanced disease

Laser photocoagulation is not successful in all cases of advanced disease. Despite meticulous management there may be serious sequelae. Such cases should be referred to centers dealing with advanced retinal surgery. Once retinal detachment has occurred, complex vitreoretinal surgery by an expert can prevent blindness in some cases.

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	Retinopathy of prematurity
i. At the time of Pre-authorization	
Clinical notes	Yes
Indirect ophthalmoscopy examination	Yes
Planned line of treatment	Yes
ii. At the time of claim submission	
Indoor case papers (ICPs)	Yes
Intra-procedure photograph(optional)	Yes
Detailed Procedure / operative notes	Yes
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:

2.2.1 At the time of pre-authorization processing- For pre-authorization processing doctor (PPD):

- Clinical notes and Ophthalmoscopy reports / stills showing extent of ROP and need for procedure.
- Was the neonate born at less than 34 weeks of gestation/ low birth weight <2000 grams / any risk factor as mentioned above)? Yes

2.2.2 At the time of claim processing- For claims processing doctor (CPD)

- Are the detailed ICPs with daily vitals and line of treatment?
- Are the detailed laser procedure / Operative Notes available?
- Is the Discharge summary with follow-up advise at the time of discharge?



- d. Was the indication of surgery documented?
- e. Was intra-operative photograph submitted (optional)?

PART III: GUIDELINES FOR IT

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:**

- a. Was indirect ophthalmoscopy report suggestive of diagnosis and indicative of need for procedure/surgery? Yes

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

References

1. Guidelines for Universal Eye Screening in Newborns Including RETINOPATHY OF PREMATURITY. Rashtriya bal swasthya karyakram. Ministry of Health & Family Welfare. Government of India. June 2017 https://www.nhm.gov.in/images/pdf/programmes/RBSK/Resource_Documents/Revised_ROP_Guidelines-Web_Optimized.pdf