Retinopathy of Prematurity Screening Guidelines by the Indian Retinopathy of Prematurity Society

Version 26th March, 2020 applicable until April 15th, 2020 (unless otherwise edited)

Background:

Retinopathy of Prematurity is considered a relative emergency in Ophthalmology and as ROP specialists we understand our duty and responsibility towards mitigating the risk of blindness in infants who are at risk of this disease.

However, these are not normal times. In this unprecedented time, it is imperative that we also do everything possible to minimize the risk of COVID-19 (Corona Virus) transmission to our patients and our staff while simultaneously engaging in treating and preventing vision loss in our babies.

Given this situation, the **Indian Retinopathy of Prematurity (iROP) Society** has decided to frame guidelines for screening and treatment for the use of those involved in the care of ROP in India.

These guidelines are not sacrosanct and may be customized and modified depending on the regional situation in a particular district or state. These guidelines are also not permanent and maybe updated periodically depending on the prevailing condition, existing regulations and national and international scenario.

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Screening Criteria:

Who?

This remains unchanged from the existing National ROP Operational Guidelines (2018):

Eligible babies include:

Those born </= 2000g grams at birth and / or

Those born </= 34 weeks of gestation

Outside the criteria if requested by the treating neonatologist

When?

We must strive to complete the first screening before the baby is 30 days old.

If possible high-risk babies (< 1200 grams and < 30 weeks) may be screened earlier between 2-3 weeks of life

Where?

In the NICU if admitted

In the NICU or Ophthalmic Office if discharged

How Often?

With the aim of reducing the number of screening visits and restricting them to have the highest yield of detection of vision threatening ROP, the following modification to the screening schedule is suggested:

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Screening for ROP:

Before screening, ask the following 4 questions: (as per Govt guidelines)

1. International / Domestic travel in last 4 week?
2. In quarantine period? (See stamp on hand or arm)
3. In isolation as some in family was COVID-19 positive or had contact with COVID positive patient
4. Fever, cough, cold.

IF yes to any of these 4, the parent / guardian must not enter the hospital and screening will not be performed. The parents / patient will be referred / directed to nearest COVID-19 designated center for evaluation as per government guidelines. These are applicable to the physician, care giver, screening team and hospital staff as well. Fever is also checked at entry point with a non-contact thermometer (false negative if anti pyretic is taken)

1. Mother's with their infants waiting for screening must maintain social distance while undergoing dilatation, screening or counseling
2. Mother must place the infant on a designated cot with a plastic / polythene sheet, uncovers the face of the infant and step away more than 6 feet. The screener walks to the baby and screens (using indirect ophthalmoscopy or a retinal camera).
3. Do not screen if the baby has conjunctivitis. ROP screening can be deferred until the infection is settled.
4. The assistant or nurse (also wearing PPE) may handle the head only if needed during the screening.
5. After screening, screener must step back more than 6 feet. The mother then comes forward and picks up the baby and the ROP card with the findings documented.
6. The plastic / polythene sheet must be replaced or sanitized with Sterilium / Bacillocid before the next baby is screened.
7. Counseling the parents / other NICU staff must be done at a distance of 6 feet or more.

8. The designated cot must be sanitized using Sterilium / Bacillocid or its equivalent. Other surfaces that may have been touched / handled by the physician / team / parent / must also be sanitized before the procedure is repeated for the next baby

9. If an infant speculum is used during screening it should not be repeated unless sterilized before being re-used

10. Dilating drops must be used without contact with the eye / eye lid of the infant. All drops must be discarded at the end of the screening session / day whichever is earlier

11.If a retinal camera is used – the lens should be cleaned with disposable alcohol swabs between each case. If a 20 D or 28D lens is being used, the rim / lens must be washed with soap and water and alcohol swabs must be used on the rim of the lens

12. Wherever possible, Personal Prophylaxis Equipment (PPE) prescribed by the ICMR must be used. As this is in short supply at this time, the minimum protection that must be used by all members of the screening team are: Facial mask (preferably N95 grade), Head Cap, Eye protective glasses, Sterile gloves. A surgical gown where possible is ideal.

13. Between each patient, hands must be washed and Sterilium be used and allowed to dry before handling the patient

14. The vehicle used for transporting the screening equipment must be sanitized at the beginning and end of the screening session / day whichever is earlier

15. In view of the new Telemedicine guidelines issues by the Government of India, wherever possible, image-based screening must be carried out and reviewed and reported by ROP specialists using a tele-medicine platform

16. To reduce the number of screening sessions, attempt must be made to pool infants of one district(s), region or center to maximize the efforts of the screening team

17. Outreach specialists must be implored to take on a larger role to perform screening in centers that are in their proximity. Image based documentation and additional opinion from senior specialists must be encouraged.

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Follow-up suggestions:

Finding in either eye with respect to zone	**Next follow up**	**Comment**
Immature retina in zone 3 and zone 2 anterior	3-4 weeks or more	If the PMA is less then 34 weeks/ < 1500 grams / sick and admitted infant, consider a closer follow-up
Zone 3 and Zone 2 anterior disease	3-4 weeks	Spontaneously regressing ROP can be watched
Zone 2 Posterior disease	2 weeks	Unless associated with treatment requiring features (see below)
Zone 1 disease	Urgent / less than a week / treat	Have a low threshold for treatment
Pre-plus	Consider early treatment or early follow-up if pupil does not dilate well and media is not clear	Individualize for each case based on the tempo of disease and PMA
Pre-plus	With good pupillary dilatation and clear media and other low risk features	Can delay the next screening by an additional 1 week from the current guidelines

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Treatment suggestions:

Disease	Comment
Type 1 ROP (ETROP)	Treat as soon as you possible, preferably on the day that screening was done. Laser recommended
Zone 1 disease	At this time, consider treatment as soon as you possible
APROP	Treat ASAP. Laser if disease is amenable. Intravitreal injections can be used, but caution to be exercised since follow-up may be a critical issue with travel restrictions for the family
Less than Type 1 ROP Stage 2 with pre plus, Stage 3 with no or early plus, high risk for APROP (but not yet full fledged), borderline Zone 1 disease / poor pupil dilatation, unclear media with pre-plus	Given the difficulty to closely follow-up consider treatment a 'little earlier' than classical Type 1 ROP
Stage 4A and 4B ROP	Surgery must be performed as soon as treating ROP specialist feels it is required with adequate precautions taken while providing anesthesia (as per WHO guidelines)
Stage 5 ROP	Surgery is not urgent. Case-to-case based decision must be considered.

Post treatment follow-up suggestions:

Follow up following treatment can be done by outreach specialists wherever feasible or by the treating physician's team if the former is not possible. Where possible, consider the consultation room and counselling room 6 meters apart or connected via intercom or CCTV. The frequency of subsequent visits can be reduced and must be decided on case-to-case basis. Post intravitreal injection cases can be reviewed SOS / less frequently as normally followed in the initial phase. Recurrences can be addressed during the follow-up after the lock-down phase where possible.

Important:

These guidelines are not designed to be ideal. In a restrictive time that the country is facing due to the *force de majeur* condition that we have encountered, it is important to understand that 'in good faith' and 'to the best of our ability' should be the driving dictum of the ROP care. Our aim should be to reduce and mitigate blindness without risking the lives of our patients and our health care givers.

These guidelines have been prepared by the consensus of the iROP Executive Board:

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