Clinical Practice Guidelines

Screening and Management of Retinopathy of Prematurity

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Guideline Development Group (Alphabetical)

Parijat Chandra
Deepak Chawla(Chairperson)
Ashok K Deorari
M R Dogra
Subhadra Jalali
Praveen Kumar
Amanpreet Sethi
Anand Vinekar

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Sachin Shah

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Table 1: Summary of recommendations for screening and management of Retinopathy of Prematurity

S. No.	Recommendations	Strength of recommendations	Certainty of evidence
1.	Following neonates should be screened for Retinopathy of Prematurity (ROP): a. Born at less than 34 weeks of gestation, OR b. If gestation at birth is not known conclusively, birth weight below 2000 g, OR c. Born at 34-36 weeks of gestation AND having ANY of the following risk factors: need of respiratory support, oxygen therapy for more than 6 h, sepsis, episodes of apnea and need of blood transfusion, exchange transfusion or unstable clinical course as determined by pediatrician. In absence of reliable records, admission in neonatal intensive care unit (NICU) or Special Care Newborn Unit(SCNU) can be taken as a surrogate risk factor.	Strong Weak, Conditional	Moderate Very low
2.	a. First screening for Retinopathy of Prematurity (ROP) should be performed at 4 weeks postnatal age (PNA). b. In neonates less than 28 weeks of gestation (up to 27^{6} weeks) or with birth weight less than 1200 g if gestation at birth is not confirmed conclusively, the first examination for ROP should be preponed to 2-3 weeks postnatal age (PNA).	Strong Strong	Not graded Very low
3.	a. A combination of topical anesthetic (TA) eye drops (0.5% proparacaine) 30 seconds prior to examination combined with oral 24% sucrose or 25% dextrose in the dose of 0.5 mL/kg just before the insertion of eye speculum should be used for prevention of pain during screening for Retinopathy of Prematurity (ROP).	Strong	Moderate

	b. Either non-nutritive sucking using a sterile single-use pacifier or provision of mother's smell by nearby placement of a clean cloth soaked in her breast milk may be combined with TA and 24% sucrose/25% dextrose to enhance pain relief during the screening procedure. *When using pacifier, the healthcare provider must explain the specific indication of its use and counsel family against using a pacifier after discharge from hospital.*	Strong, Conditional	Moderate
4.	a. Wide-angle digital retinal camera may be used for screening eligible preterm neonates for presence of Retinopathy of Prematurity (ROP) needing treatment or referral *in settings where indirect ophthalmoscopy cannot be done due to lack of a trained ophthalmologist.* b. Use of wide-angle digital retinal imaging for documentation of disease and effect of treatment in settings with ophthalmologist conducted indirect ophthalmoscopy based retinal screening program should be encouraged.	Weak, Conditional	Very low
5.	a. Intra-vitreal Bevacizumab may be used for treatment of type 1 Retinopathy of Prematurity (ROP) involving zone 1. b. Intra-vitreal Bevacizumab should NOT be used for treatment of zone 2 ROP. c. At present, evidence is not sufficient for use of anti-vascular endothelial growth factor (anti-VEGF) drugs other than Bevacizumab. Parents must be informed about benefit and risks and a written informed consent must be obtained for its use including off-label use. Follow-up retinal examinations are needed till at least 65 weeks post-menstrual age (PMA) after use of anti-VEGF drugs, with or without additional laser ablation to detect recurrence. Long term follow-up with pediatrician must be done for other developmental issues in all treated or untreated ROP cases, especially when anti-VEGF treatment is used.	Weak, Conditional	Very low

6.	a. General anesthesia (GA) or sedation, analgesia and paralysis (SAP) for management of pain are recommended during laser treatment for Retinopathy of Prematurity (ROP). b. Alternatively, orally administered sweet agents (24%sucrose or 25% dextrose) with topical anesthesia and multisensory stimulation may be used, *if GA or SAP cannot be administered safely and referring the patient to another facility will cause delay in the treatment of severe ROP*. In this situation, a written informed consent should be obtained from the parents.	Strong Weak, Conditional	Not graded Very low