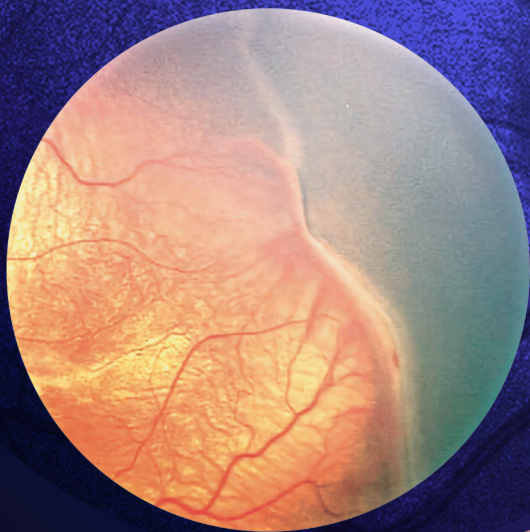


QUICK REFERENCE FOR
HEALTHCARE PROVIDERS

MANAGEMENT OF
RETINOPATHY OF PREMATURITY
(Second Edition)



Ministry of Health
Malaysia



Academy of
Medicine Malaysia

KEY MESSAGES

1. Retinopathy of prematurity (ROP) is a vasoproliferative disease in the developing retinal vessels of premature infants.
2. Significant risk factors for ROP include:
 - prematurity
 - low birth weight
 - small for gestational age
 - supplemental oxygen
3. Screening for ROP should be done for infants with either one of the following criteria:
 - birth weight <1750 g
 - gestational age <34 weeks
 - infants with an unstable clinical course who are at high risk (as determined by the neonatologist or paediatrician)
4. First examination to detect ROP should be done based on post-menstrual age (PMA) and post-natal age (PNA).
5. Preparation for ROP screening include:
 - infants are usually fasted
 - adequate pain relief
 - full eye dilatation
6. Type 1 prethreshold ROP should be treated within 48 hours of diagnosis.
7. Laser photocoagulation should be considered in the treatment of zone II (except posterior zone II) ROP.
8. Intravitreal anti-vascular endothelial growth (anti-VEGF) factor should be considered in zone I ROP and aggressive ROP (AROP) and given urgently.
9. Follow-up of infants with or without ROP should be done accordingly with complete eye examination, based on staging and treatment given.
10. Visual rehabilitation should be provided to all visually-impaired children following ROP complication.

This Quick Reference provides key messages & a summary of the main recommendations in the Clinical Practice Guidelines (CPG) Management of Retinopathy of Prematurity (Second Edition).

Details of the evidence supporting these recommendations can be found in the above CPG, available on the following websites:

Ministry of Health Malaysia: www.moh.gov.my

Academy of Medicine Malaysia: www.acadmed.org.my

CLINICAL PRACTICE GUIDELINES SECRETARIAT

Malaysian Health Technology Assessment Section (MaHTAS)

Medical Development Division, Ministry of Health Malaysia

Level 4, Block E1, Presint 1,

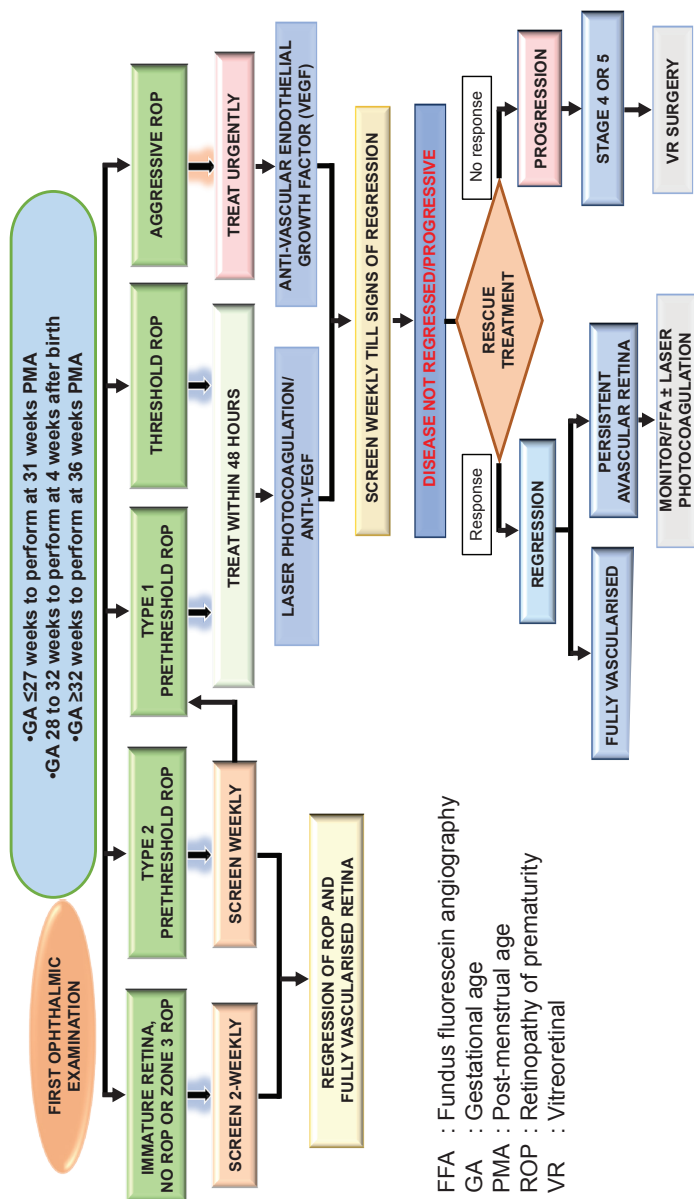
Federal Government Administrative Centre 62590

Putrajaya, Malaysia

Tel: 603-88831229

E-mail: htamalaysia@moh.gov.my

ALGORITHM 1. SCREENING AND TREATMENT OF RETINOPATHY OF PREMATURITY



FFA : Fundus fluorescein angiography

GA : Gestational age

PMA : Post-menstrual age

ROP : Retinopathy of prematurity

VR : Vitreoretinal

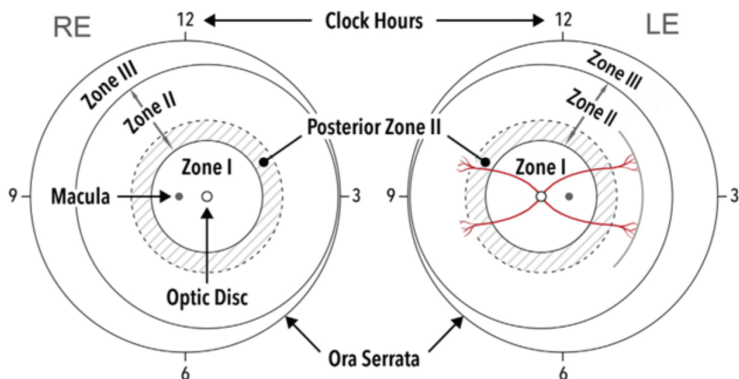
OPTIMUM TIMING FOR FIRST ROP SCREENING

GA (weeks)	PMA (weeks)	PNA (weeks)
22	31	9
23	31	8
24	31	7
25	31	6
26	31	5
27	31	4
28	32	4
29	33	4
30	34	4
31	35	4
>32	36	-

GA: gestational age, PMA: postmenstrual age, PNA: postnatal age, BW: birth weight, g: gram

- The counselling on screening for ROP can be given by paediatric doctors and Neonatal Intensive Care Unit nurses while counselling on treatment is only to be delivered by the treating ophthalmologists.

DESCRIPTION OF ZONES FOR CLASSIFICATION OF ROP



RECOMMENDED INDICATIONS FOR ROP TREATMENT

High Risk PreThreshold ROP

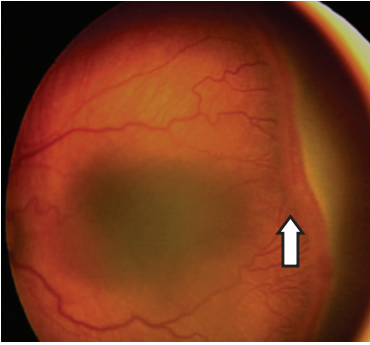
Defined into Type 1 and Type 2 to guide the treatment of infants before the development of threshold ROP.

AROP	PRETHRESHOLD ROP	
	Type 1 (High Risk)	Type 2 (Low Risk)
Severe, rapidly progressive form of ROP	<p>Zone I</p> <ul style="list-style-type: none"> Any stage with plus Stage 3 without plus <p>Zone II</p> <ul style="list-style-type: none"> Stage 2 or 3 with plus 	<p>Zone I</p> <ul style="list-style-type: none"> Stage 1 or 2 without plus <p>Zone II</p> <ul style="list-style-type: none"> Stage 3 without plus
Urgent Treatment	Treat within 48 hours*	Weekly observation

*Subject to stability of the infant

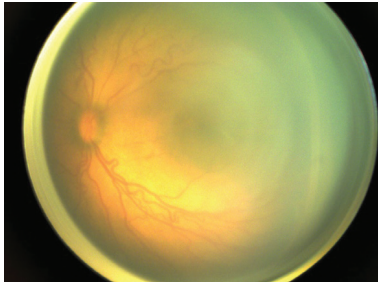
FEATURES OF ROP INDICATED FOR TREATMENT

a) Stage 3



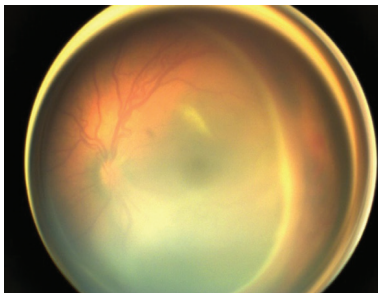
**Thick extra-retinal
fibrovascular proliferation**

b) Stage 4a



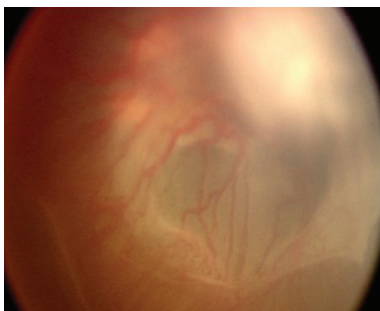
**Partial retinal detachment
without fovea involvement**

c) Stage 4b



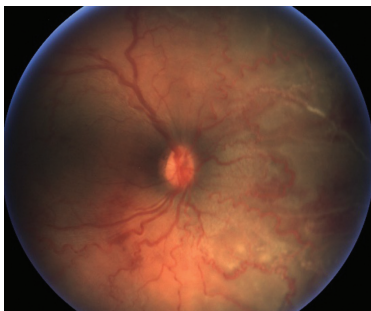
**Partial retinal detachment
with fovea involvement**

d) Stage 5

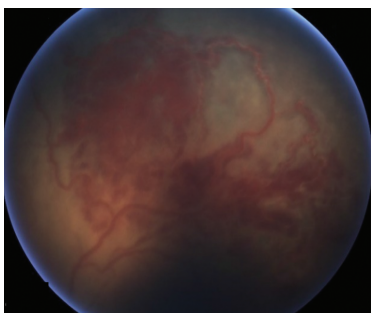


Total retinal detachment

e) AROP

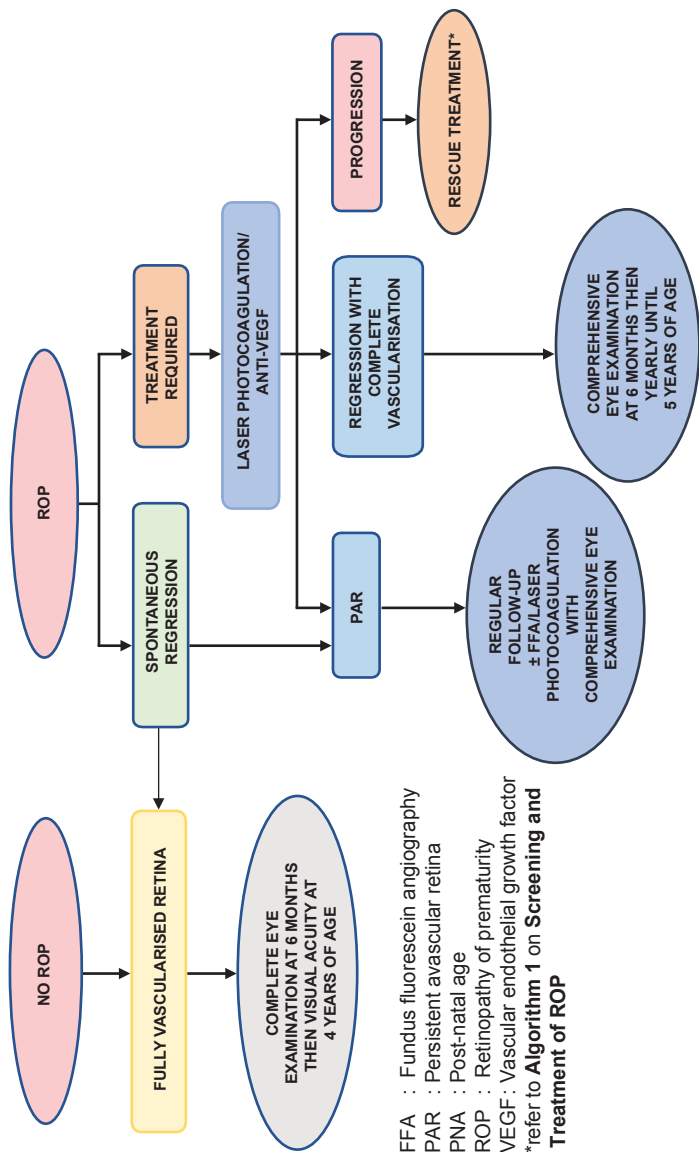


Posterior pole



Peripheral retina

ALGORITHM 2. FOLLOW-UP OF RETINOPATHY OF PREMATURITY



FFA : Fundus fluorescein angiography
 PAR : Persistent avascular retina
 PNA : Post-natal age
 ROP : Retinopathy of prematurity
 VEGF : Vascular endothelial growth factor
 *refer to **Algorithm 1 on Screening and Treatment of ROP**