Retinopathy of Prematurity

The following guideline is applicable to all medical, nursing and midwifery staff caring for premature neonates in GG&C hospitals. Medical and nursing staff caring for eligible infants should ensure that they are familiar with the screening process, the disease itself and treatment options in order that they may advise the parents appropriately. Information is available in the national guidelines from the Royal Colleges of Ophthalmology and Paediatrics *(see references).* Staff should also be familiar with the pharmacy monographs for the eye drops administered before screening occurs.

Screening Criteria

The following babies need screening for Retinopathy of Prematurity (ROP)

- Gestational age at birth - up to 30 weeks + 6 days gestation

  OR

- Birthweight - 1500 g or less

N.B. for otherwise well babies born 31 – 31+6 weeks (and not meeting birth weight screening criteria), ROP screening will **not** be routinely offered as the incidence at this gestation is very low. However, in particularly complex or previously unwell babies born at this gestation, ROP screening should be considered based on the RCPCH ROP guideline 2024. These babies should be discussed with the ophthalmology team.

Timing of screening [SEE APPENDIX 1]

For infants born before 31+0:

Book the first screen as soon as **both** the criteria below are met

- Babies must be at least 4 weeks old
- Babies must be 31+0 weeks corrected gestational age or more

For infants born from 31+0 (who weight 1500g or less):

Book the first screen as soon as the infant is:

- 4 weeks old

OR

- Is 36 weeks corrected gestational age

Subsequent screening: Screening will then continue at intervals designated by the Ophthalmologist (usually 1 to 2 weekly) until the retinae are fully vascularised or there is felt to be no ongoing risk of the infant developing severe ROP. Where it is likely that the infant will be discharged before the next screen is due a decision should be made in conjunction with the ophthalmologist as to the most appropriate time and venue for the next screen.

Local arrangements for screening:

Each neonatal unit has its own arrangements for screening, which may be subject to change. It is important that staff in each unit are aware of local arrangements for screening as well as contact details for the visiting ophthalmologist and his/her secretary. It is the responsibility of the attending neonatal unit medical staff to ensure that babies who are eligible for screening are identified and screened timeously and that medical records are up to date. Sufficient sterile examination packs should be available (one for each infant) for each screening session.

Each unit keeps an ROP diary and it is the responsibility of neonatal staff to enter each eligible baby's name into the diary on the date that they will commence ROP screening (*see guideline).* It is recommended that a subsequent check is made, prior to the ophthalmologist visit, that all eligible babies are recorded in the diary. The ophthalmologist (or their secretary) will confirm, in advance, the date and time of the screening round to ensure that drops are administered appropriately. Following the ROP round, the ophthalmologist will record the timing of the next appointment in the ward diary and complete the Badger ROP screening entry

N.B. No infant's screening should be cancelled or postponed without consultant sanction. If a decision is made to postpone screening, this decision must be reviewed weekly, and documented in the infant's case record. The parents should be updated regarding the rationale for and implications of delayed screening.

Preparation for the screening examination

- Inform the parents that the examination is to occur and the reasons for this. They should be provided with a copy of the leaflet **Screening for retinopathy of prematurity Information for parents and carers**
- Prescribe eye drops as below:-
    - Cyclopentolate 0.5%. 1 drop **only** in each eye at 60 mins and 1 drop **only** at 55 mins before the examination
    - Phenylephrine 2.5%. 1 drop **only** in each eye at 60 mins and 1 drop **only** at 55 mins before the examination
    - Proxymetacaine 0.5% 1 drop in each eye immediately prior to the examination. *The Proxymetacaine drops are administered by the Ophthalmologist.*

- Additional analgesia in the form of oral sucrose may also be prescribed for administration during the procedure – see the guideline **WoS_Sucrose_Neonates**
- For unstable babies, the on-call registrar should make her/himself available to assist the ophthalmologist as required

Documentation of screening

- All screening results should be documented on ROP section of the Integrated Care Pathway at the front of the infant's medical records.

If treatment is required

- Inform the parents that treatment is required and the reasons for this. They should be provided with a copy of the leaflet **Treatment for Retinopathy of Prematurity (ROP)** Obtain written consent for the transfer to the Neonatal Unit at the Royal Hospital for Children
- Arrange transfer with the neonatal unit at RHC, preferably for the afternoon before. **This should be done via the ScotSTAR emergency line on 03333990222**
- Write a Badger discharge summary to the doctors at RHC informing them of the baby's medical problems, present treatment, *including medications,* and any important recent test results.

If a baby is discharged before screening is completed

It is the responsibility of the discharging doctor to ensure that ROP screening is completed. An outpatient ophthalmology appointment should be organised **prior to discharge** via the following process:

Local Arrangements for arranging Out Patient screening: PRM, RAH & RHC

- Complete referral form (see site specific links below).
- If the baby has already been screened (but not completed screening) then retrieve the ROP screening proforma as follows:
  - SGH/RHSC: Pink ophthalmology notes in the casenotes
  - PRMH: Ophthalmology notes in file kept in cupboard with ophthalmic equipment (in store room off corridor between SCU and ITU)
  - Pass referral form +/- ophthalmology notes to neonatal secretaries
- Form +/- notes scanned and emailed to appointments (Appointments.newchildrenshospital@ggc.scot.nhs.uk) and to ophthalmology (Ann-Marie.Scatchard@ggc.scot.nhs.uk). Both also uploaded to portal, copies of referral into casenotes and to GP.
  - Receipt of request acknowledged by appointments immediately
  - Appointment date given within 24 hours (preferably same day as request), date passed to clinical team by neonatal secretary.
  - Appointment date given to family by referring team, written confirmation sent by appointments.

N.B. in order to edit these forms – save a copy to a local folder and edit from there

PRM Referral Letter to Ophthalmology

SGH / RHSC Referral Letter to Ophthalmology

Early screening

Ideally babies should be screened before discharge; if a more mature infant is ready for discharge before 28 days of age, consideration should be given to early screening, hopefully to obviate the need for outpatient follow up. Such babies should be discussed with the ophthalmologist or attending consultant *prior to* administration of dilating drops.

References

RCPCH Screening Guideline

UK screening of retinopathy of prematurity guideline March 2024

RCOPHTH Treatment Guideline

Treatment for Retinopathy of Prematurity (ROP)

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File name
GG&C_Retinopathy_Neonates

Implementation/Review Dates
Implementation Date – 08/07/09 Reviewed 12/11/2025 Next Review 12/11/2028

APPENDIX 1 (From RCPCH guideline)

ROP screening examination criteria:

- All infants <31 weeks' gestational age (up to and including 30 weeks and 6 days), OR
- All infants <1501g birthweight

Timing of first screen differs according to GA:

	Age at first screen (weeks*)	
Gestational age	**Postmenstrual age**	**Postnatal age**
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 (BW<1501g)	35	4
32 (BW<1501g)	36	4
33 (BW<1501g)	36	3
34 (BW<1501g)	36	2
35 (BW<1501g)	36	1

*completed weeks (i.e., 22 = 22+0 to 22+6).