

RETINOPATHY OF PREMATURITY (ROP)

INDICATIONS

- All babies either ≤ 1500 g birth weight or < 32 completed weeks gestation

PROCEDURE

When to screen

Born < 27 week gestation	30–31 weeks postnatal age
Born 27–32 weeks or ≤ 1500 g	4–5 weeks postnatal age

- Any other infant where there is concern about eyes
- If baby to be discharged before screening due, bring eye examination forward to be seen before discharge

How often to screen

- Determined by ophthalmologist but minimum recommendations are:
- weekly for vessels ending in zone I or posterior zone II; or any plus or pre-plus disease; or any stage 3 disease in any zone
- every 2 weeks in all other circumstances until criteria for discontinuing screening are met (see below)

When to stop screening

- In infants without ROP, when vascularisation has extended into zone III, usually after 36 completed weeks postnatal age
- In infants with ROP, when the following are seen on at least 2 separate occasions:
 - lack of increase in severity
 - partial resolution progressing toward complete resolution
 - change in colour of the ridge from salmon-pink to white
 - transgression of vessels through demarcation line
 - commencement of process of replacement of active ROP lesions by scar tissue

How to screen

- Arrange screening with ophthalmologist

Preparation for screening

- Prescribe eye drops for night before screening on drug chart
- Give cyclopentolate 0.5% and phenylephrine 2.5%
- 1 drop into each eye. Give 2 doses, 15 min apart, 30 min before examination (e.g. drops go in at 4.15 pm and 4.30 pm and baby seen at 5.00 pm)
- if in any doubt whether drop has gone into eye, give another drop immediately (pupil must be fully dilated)
- close eyelids after instillation of eye drops, wipe off any excess

Care during procedure

- A competent doctor/ANNP available during eye examinations
- Use comfort care techniques (nesting, swaddling +/- pacifier)
- Consider oral sucrose 0.1-0.5 mL before examination (maximum 3 doses)
- If eyelid speculum or indenter to be used, topical anaesthesia (proxymetacaine 0.5% eye drops) administered before examination
- Avoid bright light and cover incubator/cot for 4-6 hr after examination

AFTERCARE

- Eye examination results and recommendations for further screening must be included in transfer letter, together with ophthalmological status, future recommendations for screening intervals and out-patient follow-up arrangements
- Subsequent examinations must be documented by ophthalmologist in infant's medical notes
- Add any significant retinopathy of prematurity and treatment required to problem sheet