Retinopathy of Prematurity (ROP) (Parent Information Leaflet)

Retinopathy of prematurity (ROP) is a disorder of the eye, which results in the abnormal development of retinal blood vessels in the preterm infant. The most significant risk factor is extreme prematurity. Those born <32 weeks or <1250g are thought to be the most at risk.

RISK FACTORS FOR DEVELOPING ROP

- Prematurity <32 weeks
- Low birth weight <1250 grams
- Anaemia
- Blood transfusions
- Multiple infections
- RDS and prolonged ventilation
- High levels of oxygen given to preterm infants used to be an important risk factor but with newer technologies and monitoring of oxygen levels, this risk factor has diminished.

SCREENING CRITERIA:

- All babies born <32 weeks, regardless of weight.
- All babies born <1250 grams, regardless of gestation.
- Babies will be screened at 4 weeks of age but no earlier than 31 weeks corrected.
- Infants greater than 32 weeks, born >1250g, with additional problems, will be screened at the discretion of the consultant and require a special consultation request.
- Screening aims to detect and monitor abnormalities.

<table>
<thead>
<tr>
<th>Gestational age at birth</th>
<th>Corrected gestation (in weeks)</th>
<th>Age (in weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 weeks</td>
<td>31</td>
<td>9</td>
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<tr>
<td>23 weeks</td>
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<td>8</td>
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<td>4</td>
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<tr>
<td>32 weeks</td>
<td>36</td>
<td>4</td>
</tr>
<tr>
<td>Older gestation &lt;1250g</td>
<td>GA + 4 weeks</td>
<td>4</td>
</tr>
</tbody>
</table>

Adapted from American Academy of Paediatrics.
Discharge or Transfer of babies to peripheral hospital

1. All high risk infants, and those born <30 weeks require a first review as an inpatient prior to transfer or discharge.
2. If ROP is seen in the first review (or any subsequent reviews), this must be discussed and cleared with the treating consultant/team and ophthalmologist prior to transfer or discharge. A priority outpatient appointment (OPA) will be made at PMH as per the ophthalmologist request.
3. If no ROP seen and the baby is suitable for transfer to a peripheral hospital, an OPA at PMH will be arranged for 38 weeks CGA.
4. For low risk babies (>30weeks) transferred or discharged before their first review, an OPA will be arranged for 37 weeks CGA.
5. All babies discharged that fit the screening criteria will have at least one follow up OPA at PMH.
6. Infants considered 'safe' by the screening ophthalmologist after the 38 week CGA review will be given an appointment no later than 4 months from discharge.

DILACAIINE
Dilacaine is used prior to examination to allow for clear examination of the fundus of the eye.
Instill one drop of dilacaine to each eye 40 minutes prior to examination and then again, 35 minutes prior to examination.
NCCU Medication Protocol - Dilacaine.
The screening ophthalmologist will confirm the time on the day of examination.

RETCAM
RetCam imaging is undertaken by trained RetCam nurses. Images are taken of the eye and sent directly to Dr Lam for review.
NCCU Medication protocols - Tetracaine
RetCam Policy under review

LASER TREATMENT
The most effective treatment for ROP is laser therapy; this burns away the periphery of the retina which has no normal blood vessels. This slows or reverses the abnormal growth of blood vessels. Laser is only performed with advanced ROP particularly stage III with "plus disease".
All babies requiring laser treatment will require ongoing follow up OPA.
See Pre and Post-Operative Care of Laser Treatment
REFERENCES


Retinopathy of Prematurity (ROP) Resource Guide. NEI Health Information. www.nei.nih.gov/health/rop