



THE REPUBLIC OF UGANDA

MINISTRY OF HEALTH



# THE OPHTHALMOLOGIST'S ROLE

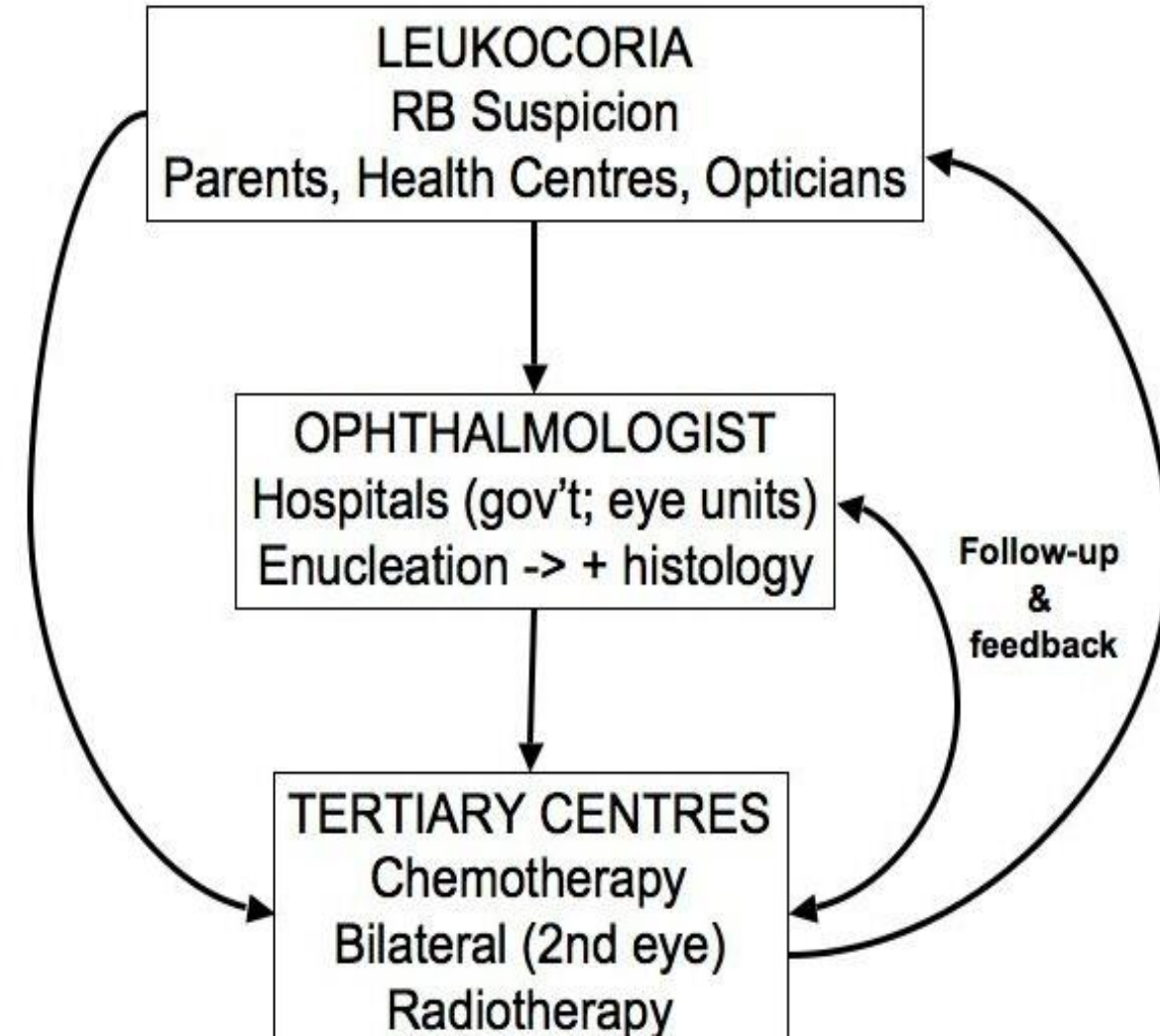
DR IRENE NANSUBUGA



# TEAM PLAYER

## The ophthalmologist

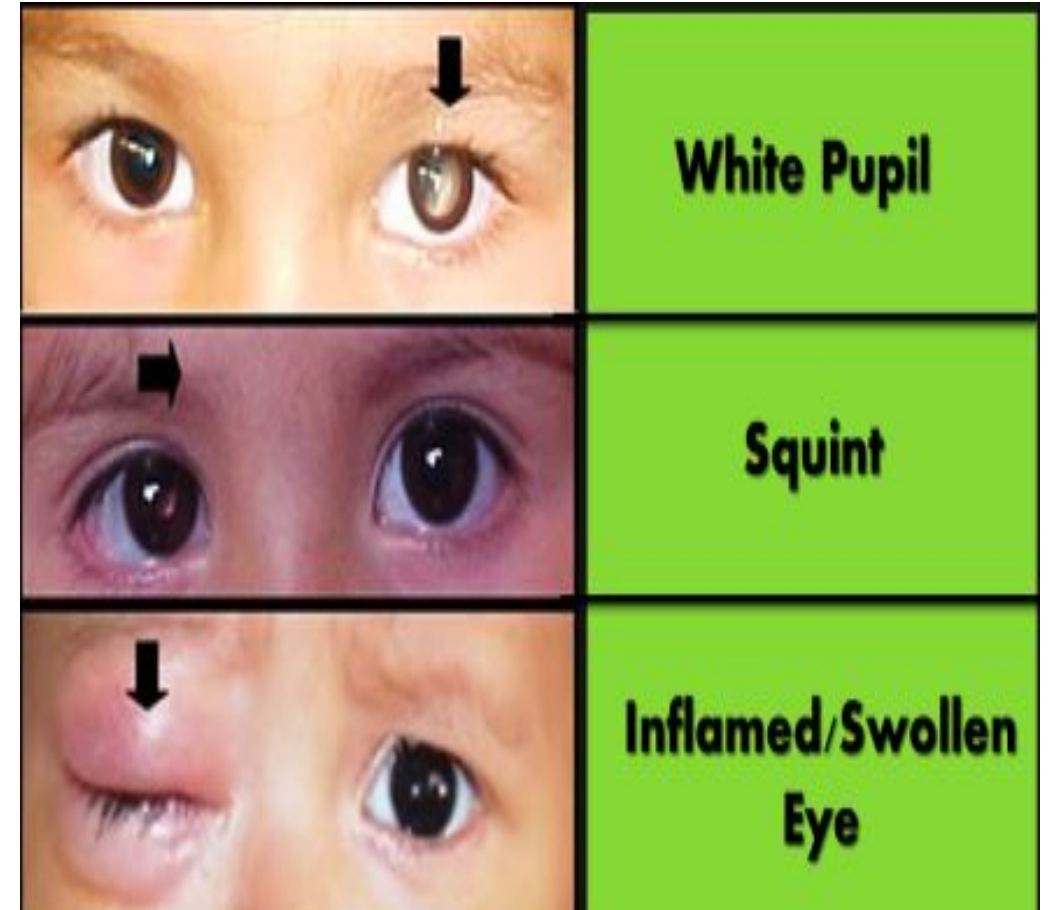
- Diagnoses and encourages genetic testing
- Guides and gives both medical and surgical treatment alongside the team
- Monitors effectiveness of treatment especially through regular EUAs and imaging
- follows patient with pediatric oncologist to detect tumour recurrence
- Encourages Public Health and awareness through advocacy and early detection programs





# Presentation

- Leukocoria (80%)
- Strabismus (15%)
- Nystagmus (10%)
- Advanced disease:
  - Buphthalmos
  - Glaucoma
  - periorbital cellulitis.
  - Proptosis





# EXAMINATION

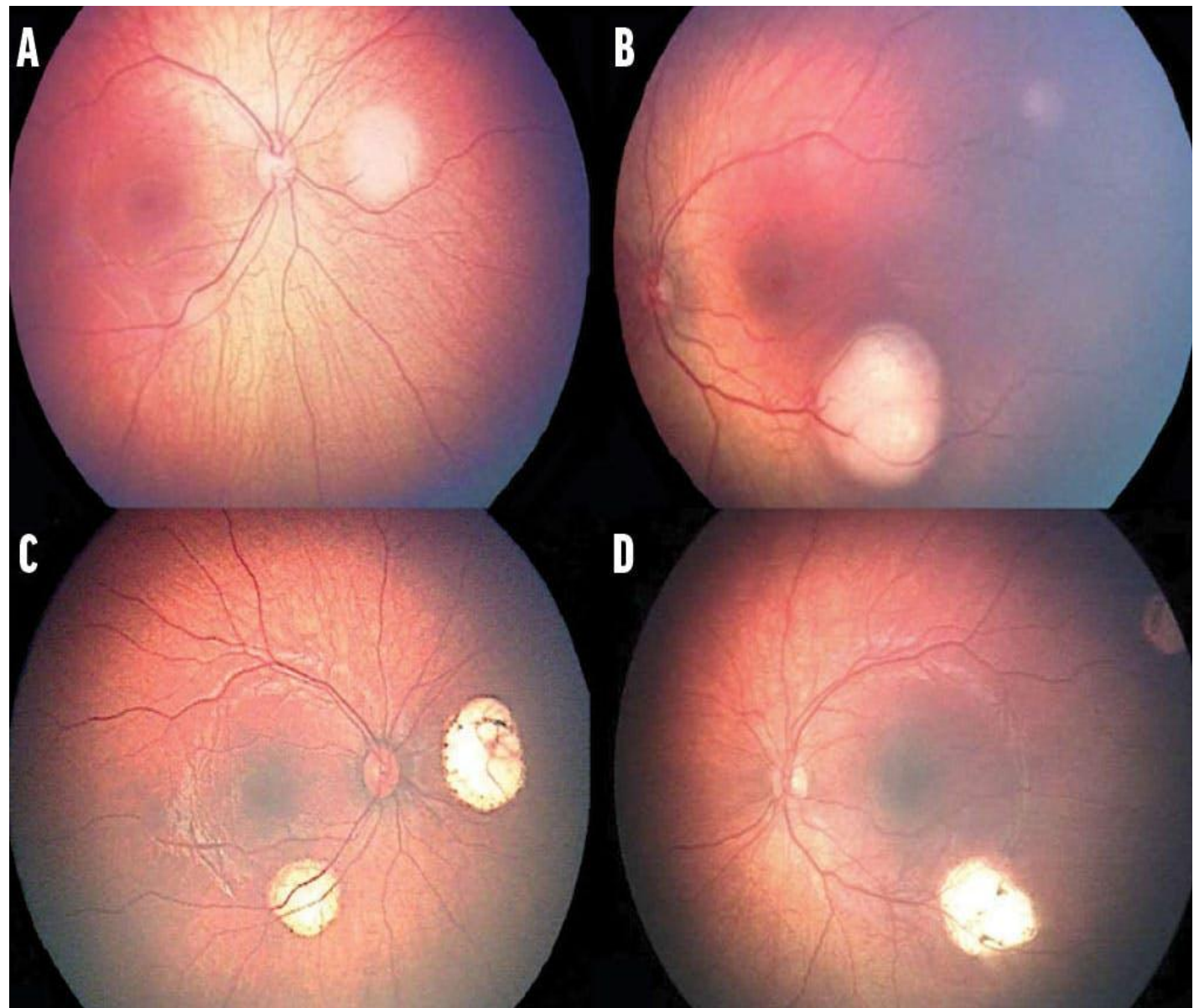
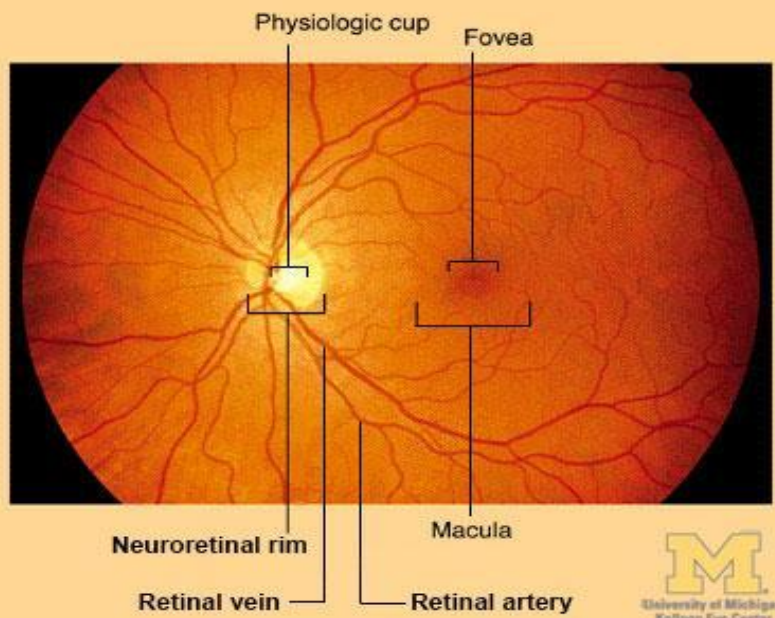
## CLINICAL

**1. Red Reflex Test:** A simple but crucial screening tool—absence of a red reflex can indicate retinoblastoma.

Can be with a torch, arch light or direct ophthalmoscope.

**2. Dilated Fundus Examination:** Performed using **indirect ophthalmoscopy** to check for intraocular tumors.





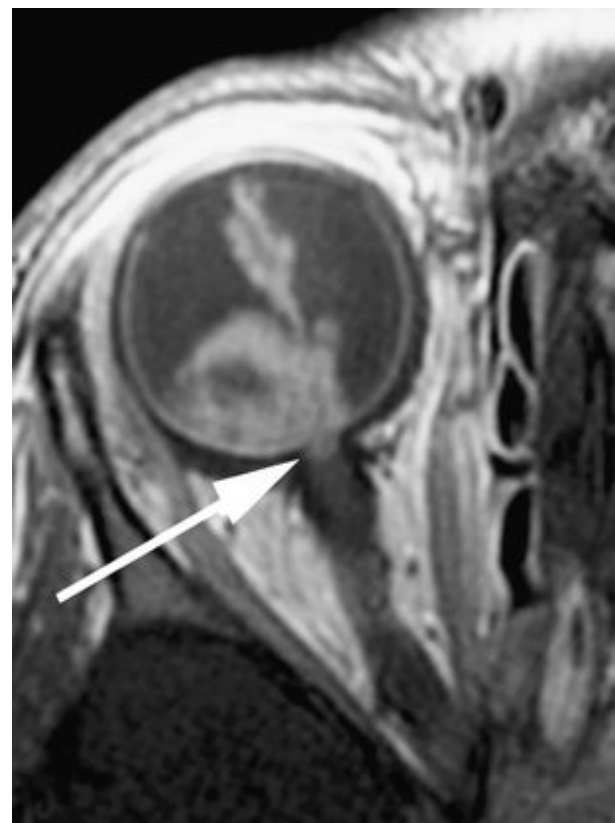
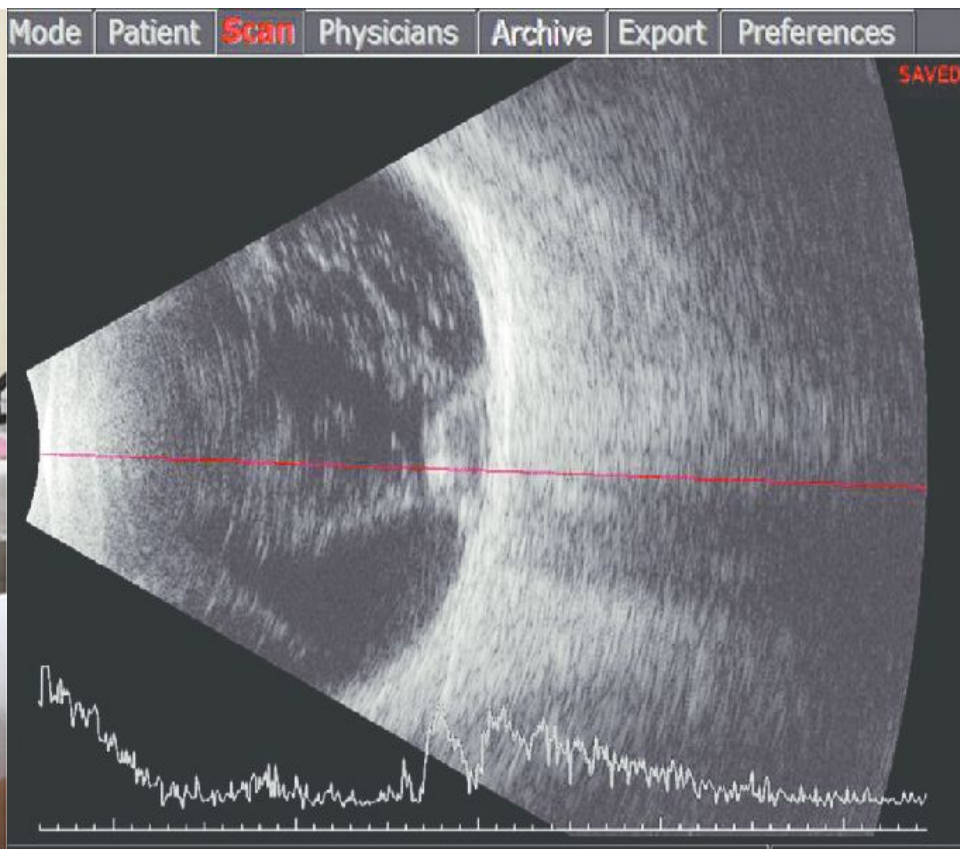




# IMAGING

This can be done with

- Ret-cam images
- B-scan and A scans
- MRI
- CT-scan (normally discouraged particularly in the heritable form (RB1 gene mutation) because it increases the risk of developing **secondary cancers**, especially osteosarcomas.)



# Grouping of retinoblastoma

## International Intraocular Retinoblastoma Classification (IIRC)

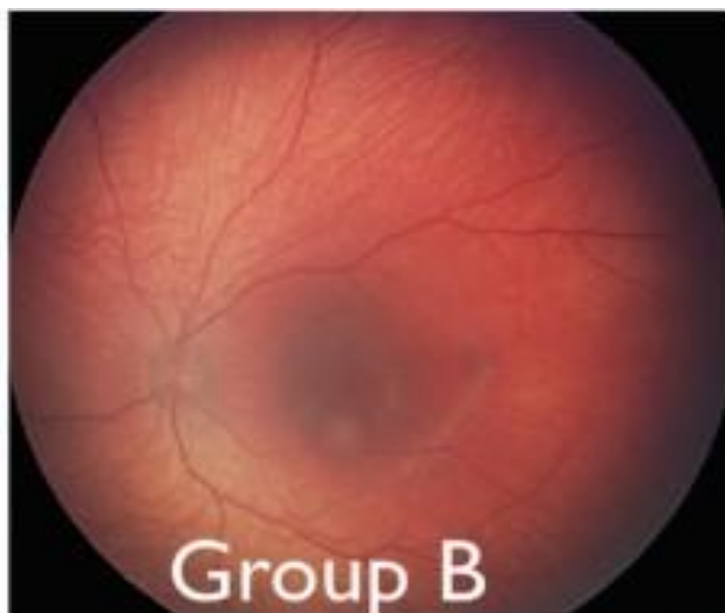
Group	Intraocular Classification of Retinoblastoma (ICRB)	Management
<b>Group A (very low risk)</b>	Retinoblastoma $\leq 3$ mm (in basal dimension or thickness)	<ul style="list-style-type: none"> <li>- <b>Focal therapy</b> (Laser photocoagulation, Cryotherapy)</li> <li>- <b>Occasional chemotherapy</b> if multiple tumors</li> </ul>
<b>Group B (low risk)</b>	Retinoblastoma $> 3$ mm (in basal dimension or thickness) or <ul style="list-style-type: none"> <li>• Macular location (<math>\leq 3</math> mm to foveola)</li> <li>• Juxtapapillary location (<math>\leq 1.5</math> mm to disc)</li> <li>• Additional subretinal fluid (<math>\leq 3</math> mm from margin)</li> </ul>	<b>Focal therapy (Laser, Cryotherapy, Plaque radiotherapy) alongside Systemic chemotherapy intra-arterial chemotherapy</b>



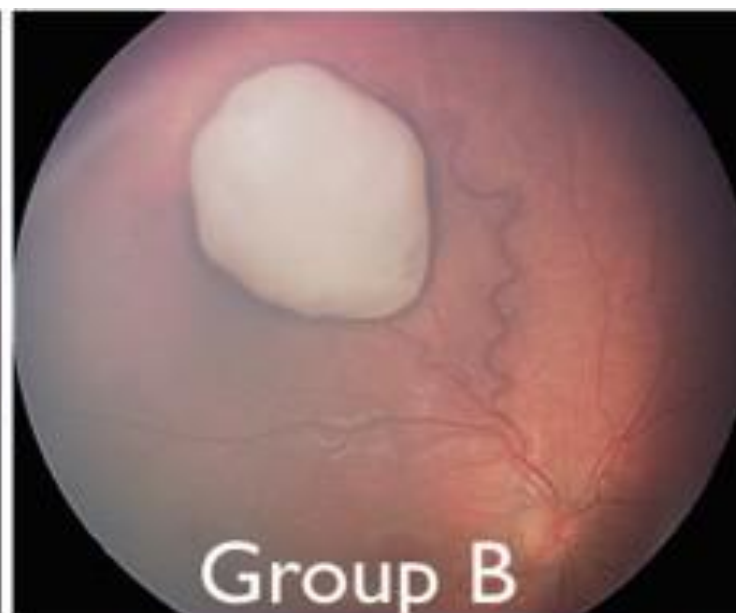
<b>Group C (moderate risk)</b>	<ul style="list-style-type: none"> <li>• Subretinal seeds <math>\leq 3</math> mm from tumour</li> <li>• Vitreous seeds <math>\leq 3</math> mm from tumour</li> <li>• Both subretinal and vitreous seeds <math>\leq 3</math> mm from tumour</li> </ul>	<ul style="list-style-type: none"> <li>• Systemic chemotherapy</li> <li>• Intra-arterial chemotherapy (IAC)</li> <li>• Focal consolidation (Laser, Cryotherapy)</li> </ul>
<b>Group D (high risk)</b>	<ul style="list-style-type: none"> <li>• Subretinal seeds <math>&gt; 3</math> mm from tumour</li> <li>• Vitreous seeds <math>&gt; 3</math> mm from tumour</li> <li>• Both subretinal and vitreous seeds <math>&gt; 3</math> mm from retinoblastoma</li> </ul>	<ul style="list-style-type: none"> <li>• Systemic chemotherapy + IAC</li> <li>• Intravitreal chemotherapy for seeding control</li> <li>• Enucleation</li> </ul>
<b>Group E (very high risk)</b>	<ul style="list-style-type: none"> <li>• Extensive tumour occupying <math>&gt;50\%</math> globe or with <ul style="list-style-type: none"> <li>• Neovascular glaucoma</li> <li>• Opaque media from haemorrhage in anterior chamber(hyphema), vitreous or subretinal space</li> <li>• Invasion of postlaminar optic nerve,</li> <li>• choroid (<math>&gt;2</math> mm), sclera, orbit, anterior chamber</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Primary enucleation (eye removal) with histopathological assessment</li> <li>• Adjuvant chemotherapy if extraocular spread is found</li> </ul>



Group A



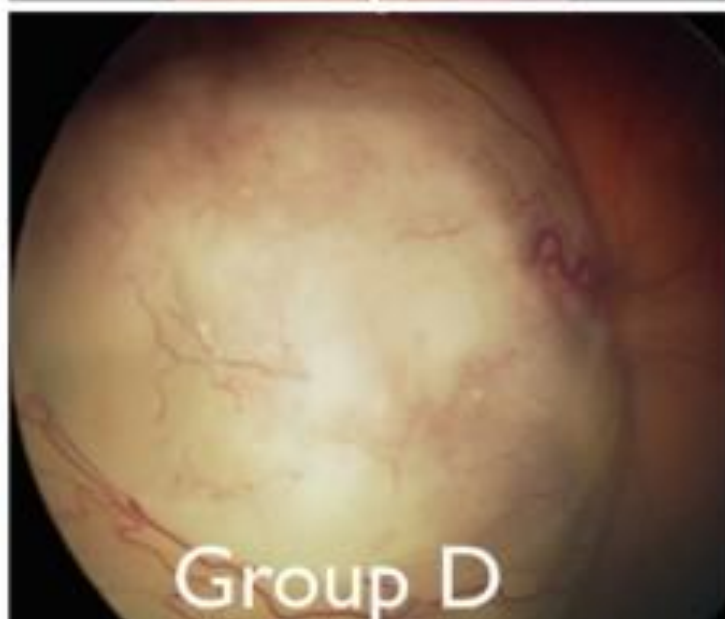
Group B



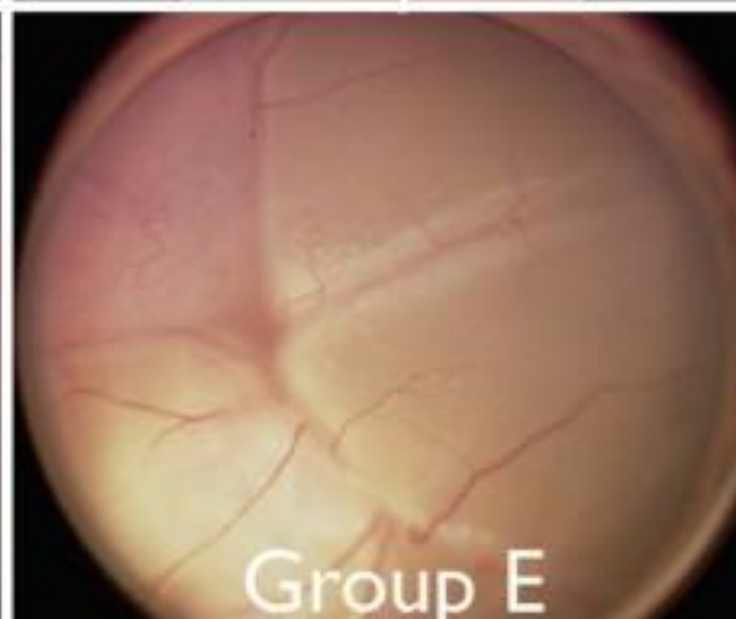
Group B



Group C



Group D



Group E



# WHERE ARE WE?







# WHERE WE ARE GOING?



**EVERY CHILD DESERVES A WORLD WHERE THEY  
CAN SEE WHAT THEY FOUGHT TO LIVE IN** (early  
detection saves not just life but Sight too)

