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Visual Outcomes in Decentralized Trials

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Response Evaluation In Neurofibromatosis Schwannomatosis
INTERNATIONAL COLLABORATION

Current REiNS Recommendations

Primary Outcome

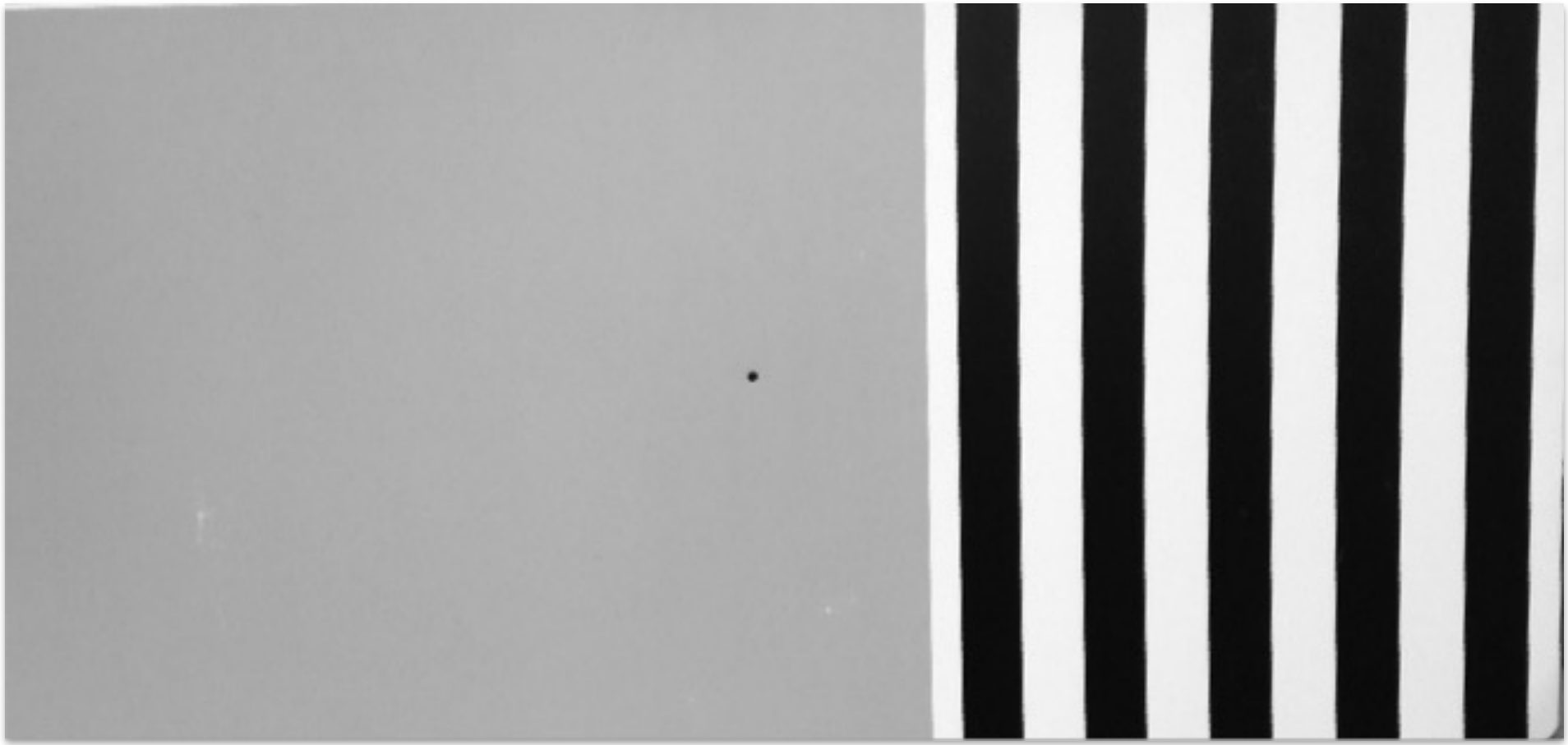
- Visual Acuity (VA) using Teller Acuity Cards

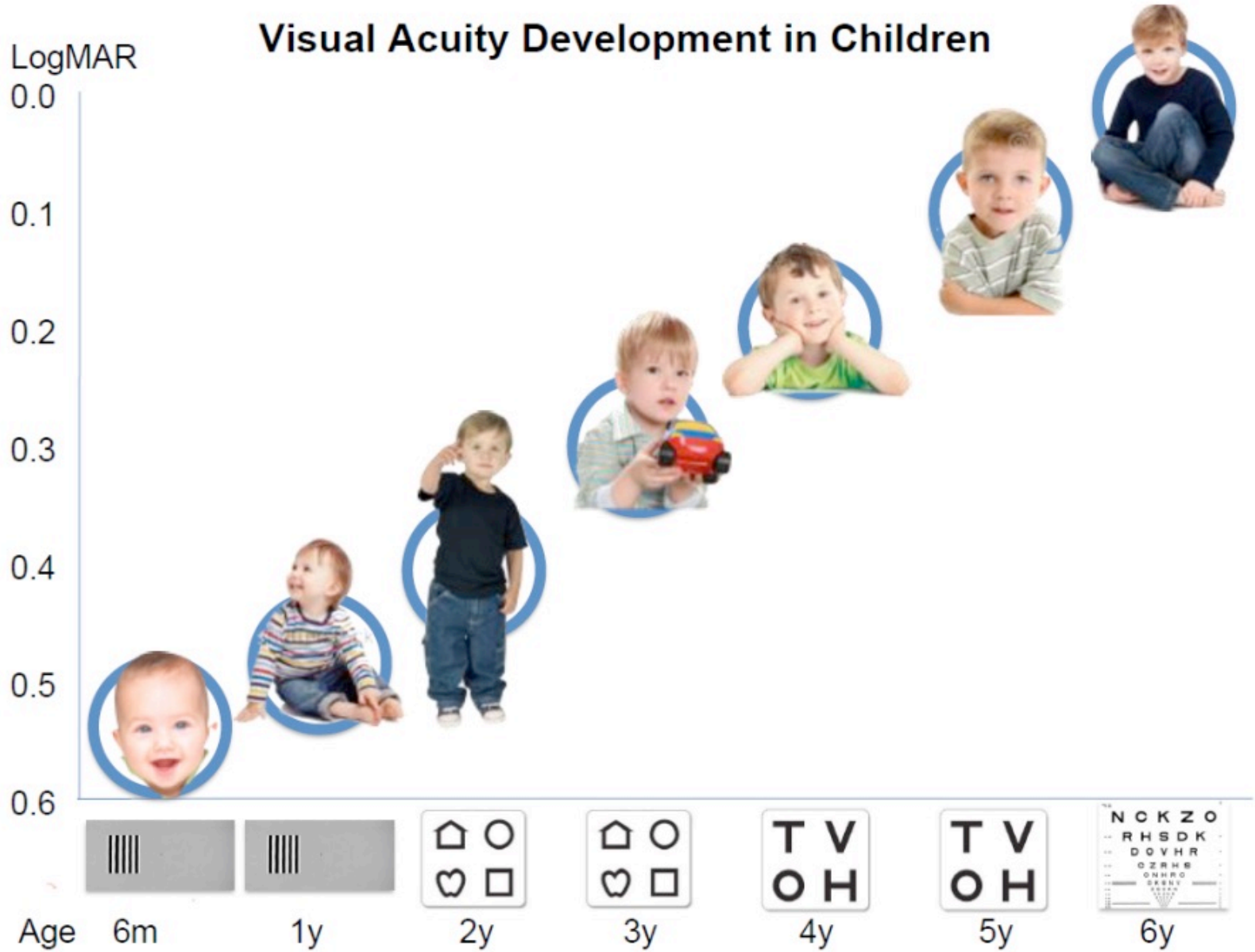
Rationale

- Primary deficit caused by disease (OPGs)
- Continuous outcome measure ideal for trials
- Validated and used in other conditions/trials
- Used across all ages/abilities*

[redacted]

Teller Acuity Card (TAC) - Preferential Looking




Visual Acuity Development in Children
LogMAR
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Age
6m
1y
2y
3y
4y
5y
6y
T V
O H
T V
O H
N C K Z O
R H S D K
D O V H R

Current REiNS Recommendations

Secondary Outcomes

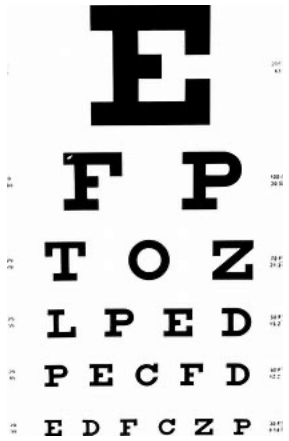
- HOTV letter acuity
- CVFQ QOL scale

Rationale

- More age appropriate for older kids
- Vision loss impacts QOL

Standardized

Variable



In Other Words

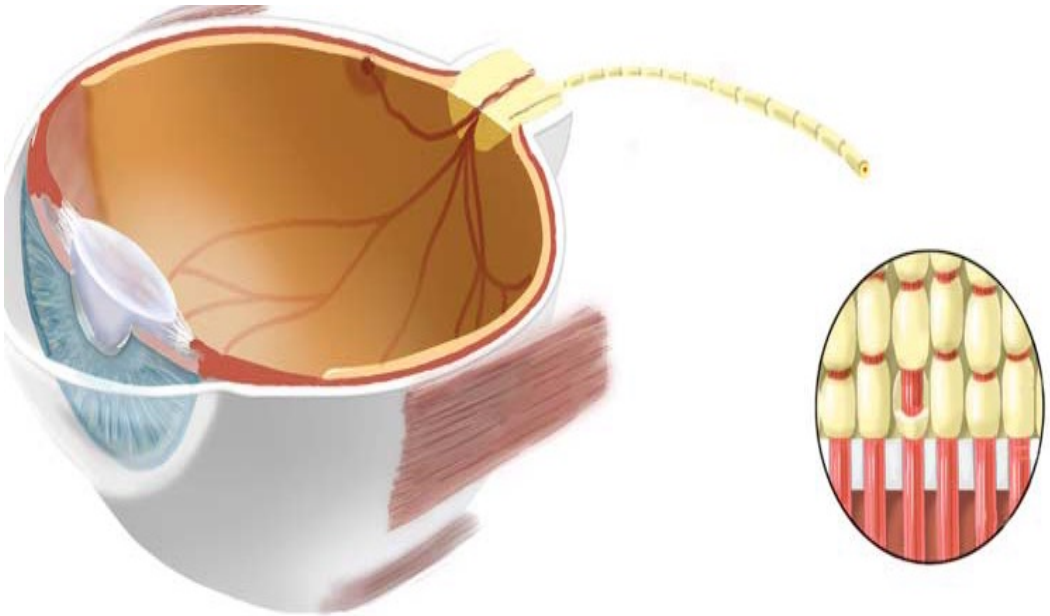
- Site A's change of 2 lines on the visual acuity chart (i.e., 20/20 to 20/30) ≠ Site B's change of 2 lines

- TAC Scores ≠ ATS-HOTV scores

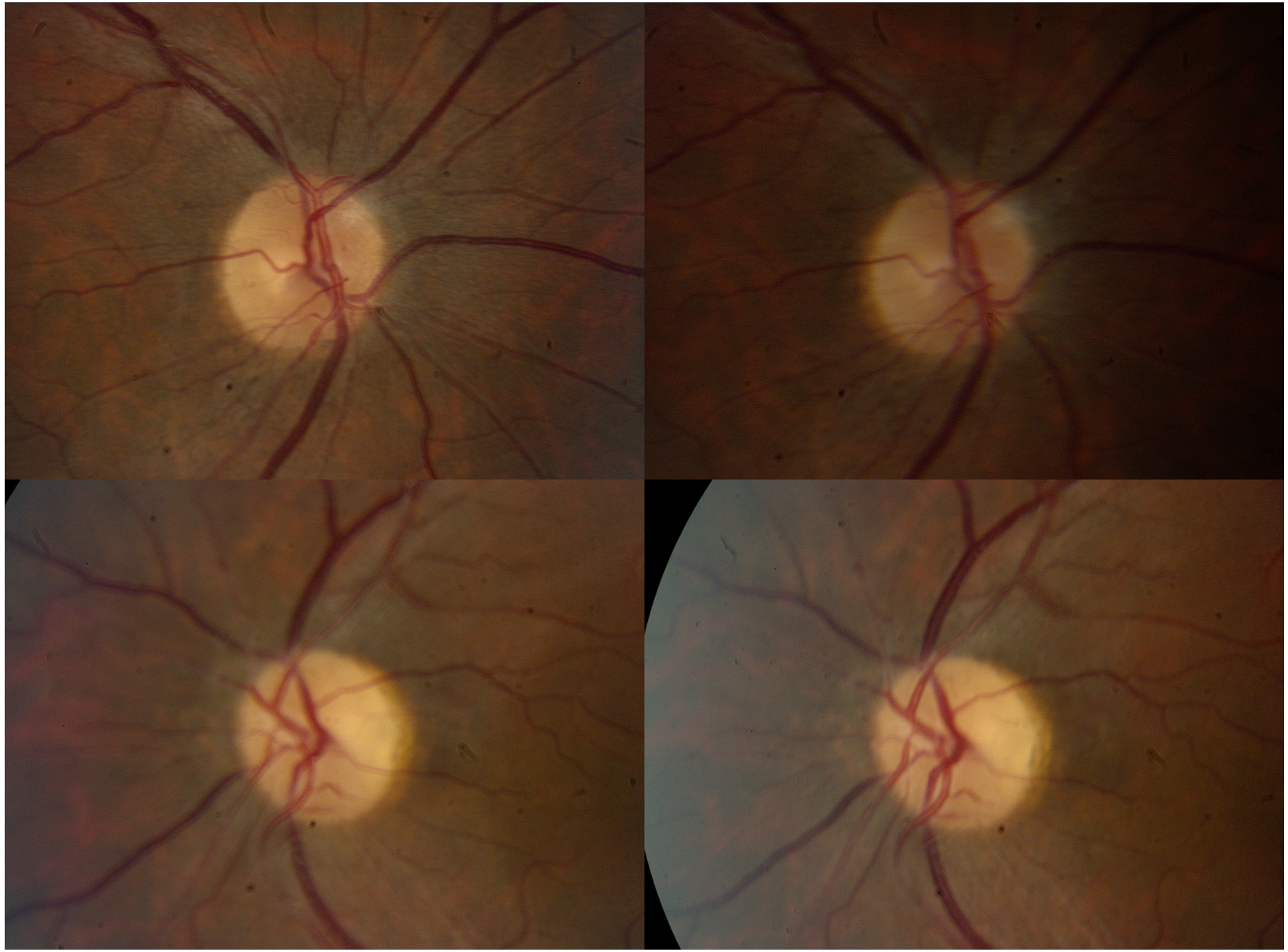
Other REiNS Recommendations

Optic Nerve Pallor

-binary outcome
-subjective
-Natural Hx*

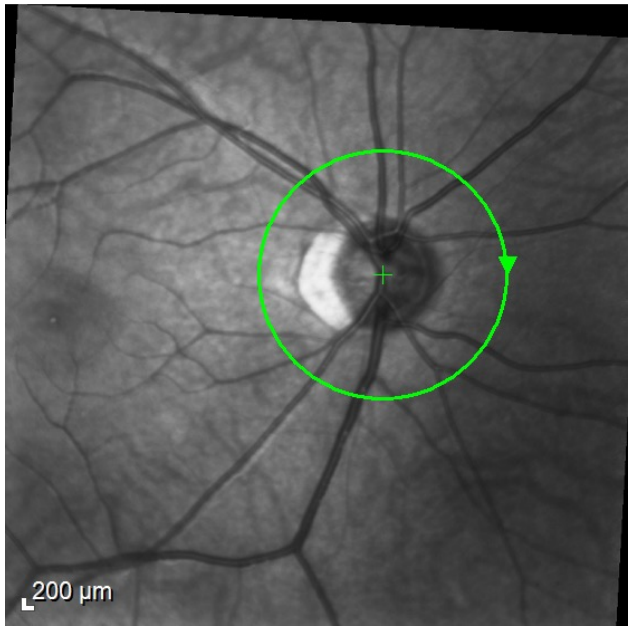


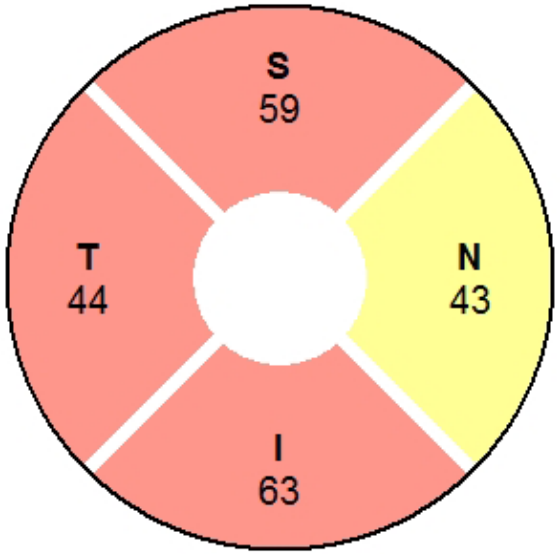
Adapted from Frohman et al., Archives of Neurol 2008



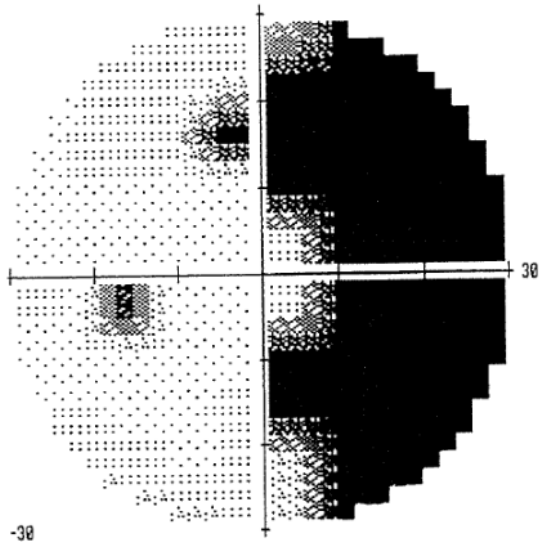
REiNS – needs more research

OCT





Visual Field



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Other Trial Needs for OPGs

<u>Toxicity exams</u>

- Inclusion/Exclusion criteria
- Basic dilated eye exam

Remote Visit Implementation

Test	Challenges	Advantages	Recommend?
TAC	-Expertise required -Cost	-REiNS and FDA rec'd -ACNS1831 success -NatHx Study success	No
ATS-HOTV	-Cost	-Easy to use -Universally accepted (FDA)	**Yes**
Optic disc pallor	-Subjective assessment	-TBD	No

[redacted]

Remote Visit Implementation

Test	Challenges	Advantages	Recommend?
Visual Field	-Access/cost -Device variability	-common protocols	No
OCT	-Access/cost	-established biomarker -objective assessment	**Yes**
QOL measures			Maybe
Toxicity or Inc/exclusion	-Optometry involvement	-Low rates of toxicity -Improved access	**Yes**

[redacted]

Barriers to Ophthalmology Engagement

- Extra time to complete non-SOC** tests
- Cost of equipment (TAC, ATS-HOTV, OCT)
- Confidence/skill to adequately access
- Benefit to them**

[redacted]

The Future

The Future

- Determine if NF1-OPG Natural History data will provide insight on which clinical and MRI features may be helpful in decentralized trials.
- “There is always something new”

  -Michael J. Fisher, MD

Acknowledgements

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