

Assessing Referrals for Paediatric Suspicious Optic Discs: A 6-Month Audit of Accuracy and Outcomes

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Background

Blurred or suspicious optic discs in children can indicate **serious sight- and life-threatening conditions**, including papilloedema secondary to raised intracranial pressure, optic neuritis, or other neuro-ophthalmological pathology. Timely and accurate referral is crucial as delayed diagnosis can result in permanent visual impairment or neurological sequelae.

The paediatric ophthalmology service at Hillingdon Hospital observed a **significant increase** in optician referrals for suspicious optic discs, prompting evaluation of referral accuracy, patient outcomes, and management.

- Aims**
- Assess accuracy of referrals for suspicious optic discs in children
 - Review requested urgency, referral date, and clinic appointment date
 - Evaluate clinical outcomes and management received
 - Identify potential improvements in the referral pathway

Methods

Retrospective data collection was carried over 6 months (Sep 2024 to April 2025) including all consecutive referrals for suspicious disc margins to paediatric service in Hillingdon Hospital looking at referral indication and urgency, demographics and symptoms, clinical examination (visual acuity, IOP, RAPD, Ishihara colour vision, optic disc OCT, fundus photography), final diagnoses, and follow-up plans. Findings were compared against Moorfields Eye Hospital guidelines for management of suspicious paediatric optic discs.

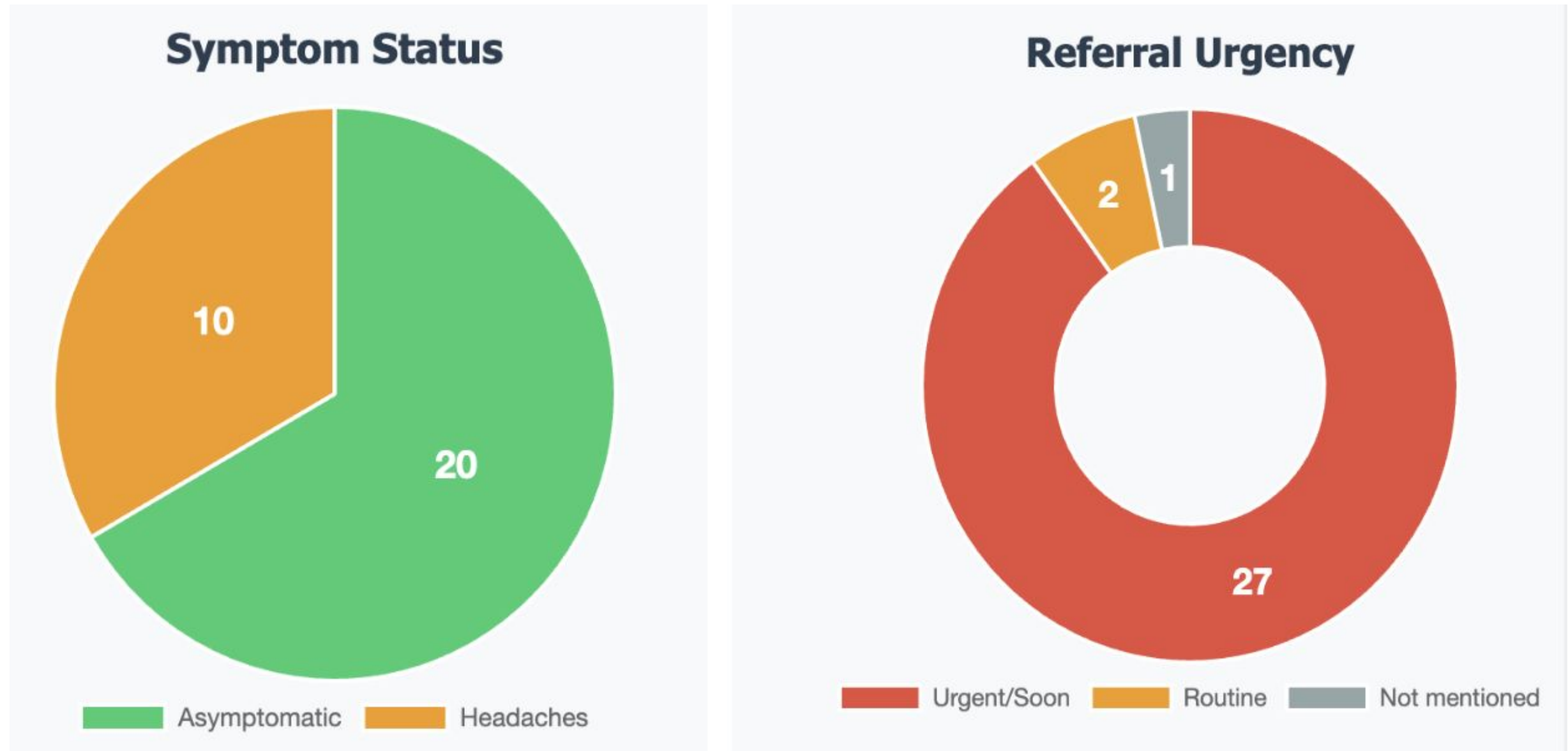
Results

Thirty consecutive paediatric patients were reviewed during the audit period. Mean age was 10.8 years (range 5–15); 16 male, 14 female. Twenty patients (67%) were asymptomatic, while 10 (33%) presented with headache.

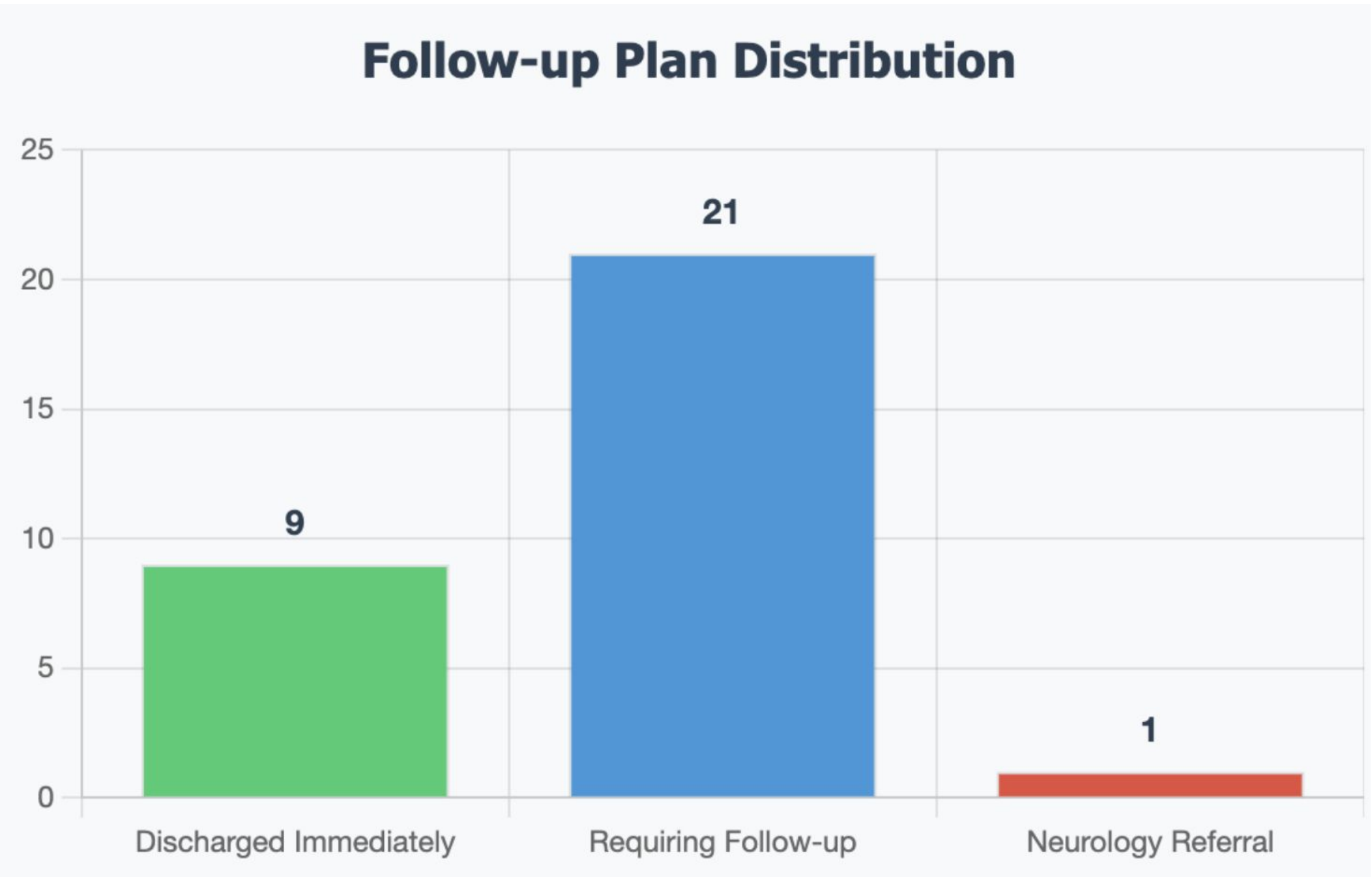
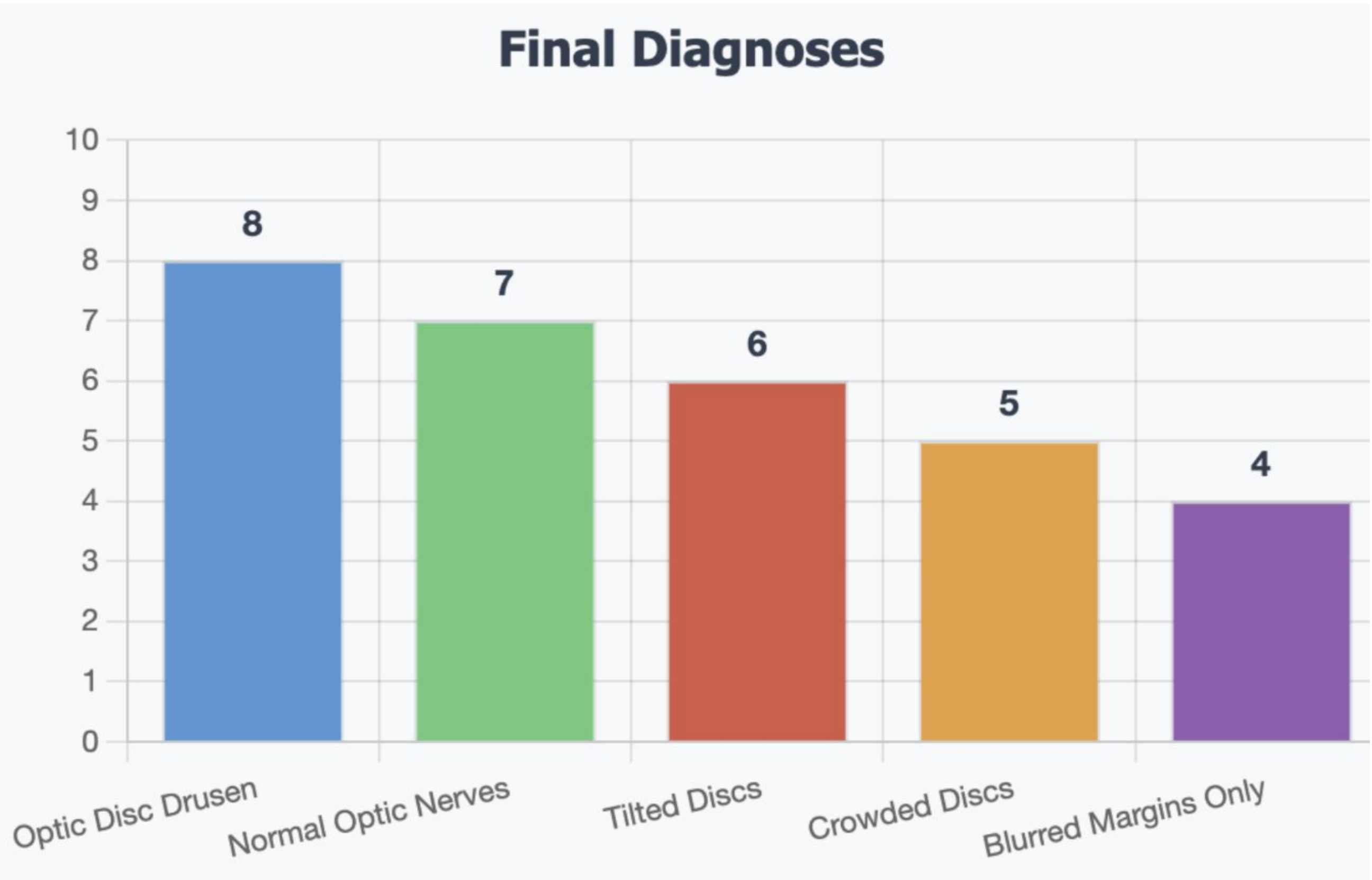
All 30 patients (100%) underwent comprehensive ophthalmological assessment (visual acuity, intraocular pressure, RAPD testing, Ishihara colour vision, optic disc OCT, and fundus photography)

27 of 30 referrals (90%) were marked urgent despite the absence of clinical features suggestive of true papilloedema. Critically, all 30 cases (100%) had either normal optic disc appearances or benign anatomical variants, and no cases of papilloedema, optic neuritis, or other pathology were identified.

21 of 30 patients (70%) required follow-up for monitoring or reassurance, placing additional demand on specialist clinic capacity. The remaining 9 (30%) were discharged after initial assessment with appropriate reassurance to families.



Assessment Procedures		
Procedure	Number of Cases	Percentage
Visual Acuity (VA)	30	100%
Intraocular Pressure (IOP)	30	100%
RAPD Test	30	100%
Ishihara Color Test	30	100%
OCT Scan	30	100%
Fundus Photography	30	100%
Ultrasound B Scan	4	13.3%



Conclusion

All 30 paediatric referrals for blurred optic discs were for benign findings or normal variants, with no true pathology identified. Despite this, 90% were inappropriately triaged as urgent. There is a clear need for improved referral guidance and community optometrist education. The high proportion of patients requiring follow-up (70%) also suggests potential benefit from a dedicated virtual pathway for benign follow-up cases.