Breaking Barriers: Improving Diagnostic Standards in Glaucoma Care Through Targeted Interventions Complying with NICE Guidelines

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INTRODUCTION

Accurate and timely diagnosis of glaucoma is critical to effective management and the prevention of irreversible vision loss.
NICE guideline NG81 specifies that all new and re-referred patients suspected of having glaucoma must undergo five essential diagnostic tests at their first visit:

1. Visual field assessment using standard automated perimetry,
2. Optic nerve evaluation via stereoscopic slit-lamp biomicroscopy,
3. Intraocular pressure (IOP) measurement using Goldmann Applanation Tonometry
4. Gonioscopy,
5. Central corneal thickness (CCT) measurement.

This audit aimed to assess compliance with these standards at a tertiary eye care center, identify barriers to adherence, and evaluate the impact of targeted interventions designed to address these gaps across two audit cycles.

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METHODS

A retrospective audit was conducted at Imperial College NHS Foundation Trust. Cycle 1 included all new and re-referred glaucoma patients seen between January and March 2023. Following the first cycle, interventions were implemented, including enhanced staff training focused on diagnostic accuracy, pre-clinic reviews to ensure appropriate test allocation, improved access to diagnostic equipment, and streamlined workflows.

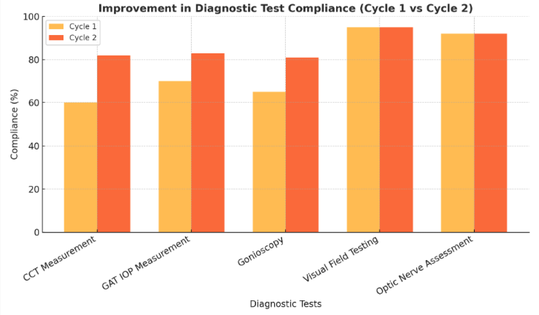
Cycle 2, conducted between May and July 2024, assessed compliance post-intervention in a cohort of 246 patients, with compliance rates for each mandated test compared between cycles.

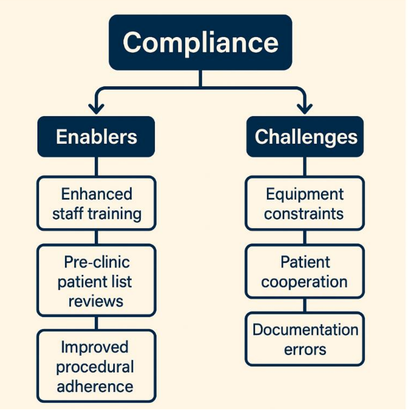
Qualitative observations were collected to identify factors contributing to non-compliance.

RESULTS

Compliance improved significantly across several diagnostic domains in Cycle 2:

- **CCT measurement:** 82% (up from 60%)
- **Goldmann applanation tonometry (GAT):** 83% (up from 70%)
- **Gonioscopy:** 81% (up from 65%)
- **Visual field testing:** maintained at 95%
- **Optic nerve assessment:** maintained at 92%





CONCLUSIONS

This audit highlights how targeted interventions—such as staff training, workflow improvements, and better equipment access—can significantly improve compliance with glaucoma diagnostic guidelines. Ongoing challenges remain, including documentation accuracy and patient tolerance of gonioscopy. Ensuring consistent diagnostics at first visit is key to better outcomes and supports long-term care, including virtual models. These findings offer a scalable approach to improving quality in glaucoma services across the NHS.