

Assessing vision as part of the CGA in frail patients admitted with fractures

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Introduction

Falls are a common cause of morbidity and mortality in frail patients. They are estimated to cost the NHS more than £2.3 billion per year. Sensory disturbances resulting in the presentation are poorly assessed and investigated. Visual impairment have a prevalence of falls of up to 38%, and when comparing to individuals with visual loss, those with impairment have double the risk.

Given the ever-ageing population, and higher prevalence of falls and falls recurrence, attention is vital for the role, assessment and general management of vision and visual impairment, with an aim to minimize the risk of future falls.

Primary QIP Objective

The aim of our project was for 50% of relevant patients admitted (into the Orthogeriatric Ward) with fractures following falls to have a vision assessment within 5 days of admission

Secondary QIP Objective

Investigate the rate of assessment of patients with falls due to visual impairment

Methodology

- Inclusion Criteria: Patients admitted following a fall with a resultant fracture and a Rockwood Clinical Frailty Score > 5
- Exclusion Criteria: Patients with significant delirium/dementia, medically unwell or patients discharged to a palliative destination/end of life care on the ward
- Data collected included date of admission, transfer, CGA, date of visual assessment as well as cognitive and visual status, risk of vision contributing to fall, presence/prescription of medication/glasses and findings of vision examination
- Data was collected at time of admission to the Orthogeriatric Ward with as well as 5 days later
- We regularly collected data on how many patients had a vision assessment performed whilst implementing interventions such as Teaching Sessions, Posters and including visual assessments in the Comprehensive Geriatric Assessment (CGA)

Results

- Preliminary data suggested 80% of patients were asked by nursing staff if they used glasses and 11% of patients were asked by doctors if there were any changes to their vision
- Initial data collection, over 2 weeks demonstrated a rate of 0% for visual assessment of patients. Following implementation of Intervention 1, data was collected over 6 weeks (3 Sets). Set 1 demonstrated overall examination rate of 11.1%(n=1), followed by a decrease in Set 2 to 0% (n=0), followed by an improvement in Set 3 to 44.4%(n=4)
- Implementation of Intervention 2, dramatic rates of improvement were noted. Average of 70% (n=27)
- Implementation of Intervention 3 demonstrated sustained efforts of the aim of the QIP. Average of 97% (n=18)

Analysis

Out of the 138 admissions into the orthogeriatric ward, 66 of these patients had no evidence of cognitive impairment. These admissions spanned across 6 months (August 2023-January 2024) with an average age of 82.9 years. The primary objective of the QIP was to ensure that 50% of patients admitted into the ward had visual assessments performed, and this is evident following the interventions.

Shareholder feedback suggested that poor rates of initial visual assessments were due to lack of confidence in using the visual assessment tool and complicating an already busy geriatric assessment. This affected both the rate of assessments and the time to assessment.

However with access to the modified tool (via QR codes on Posters), teaching sessions and formal inclusion of the visual assessment checkbox on the geriatric assessment sheet, both metrics showed significant and sustained improvement (evident in Chart C and B)

Of the 66 patients, 19% (n=13), were found to have visual impairments, ranging from macular degeneration and glaucoma to diagnosis of progressive supranuclear palsy.

This translates to almost **1 in 5 patients with impaired vision**, indicating that as a service we need to improve and sustain the rate of visual assessments that we perform on inpatients.

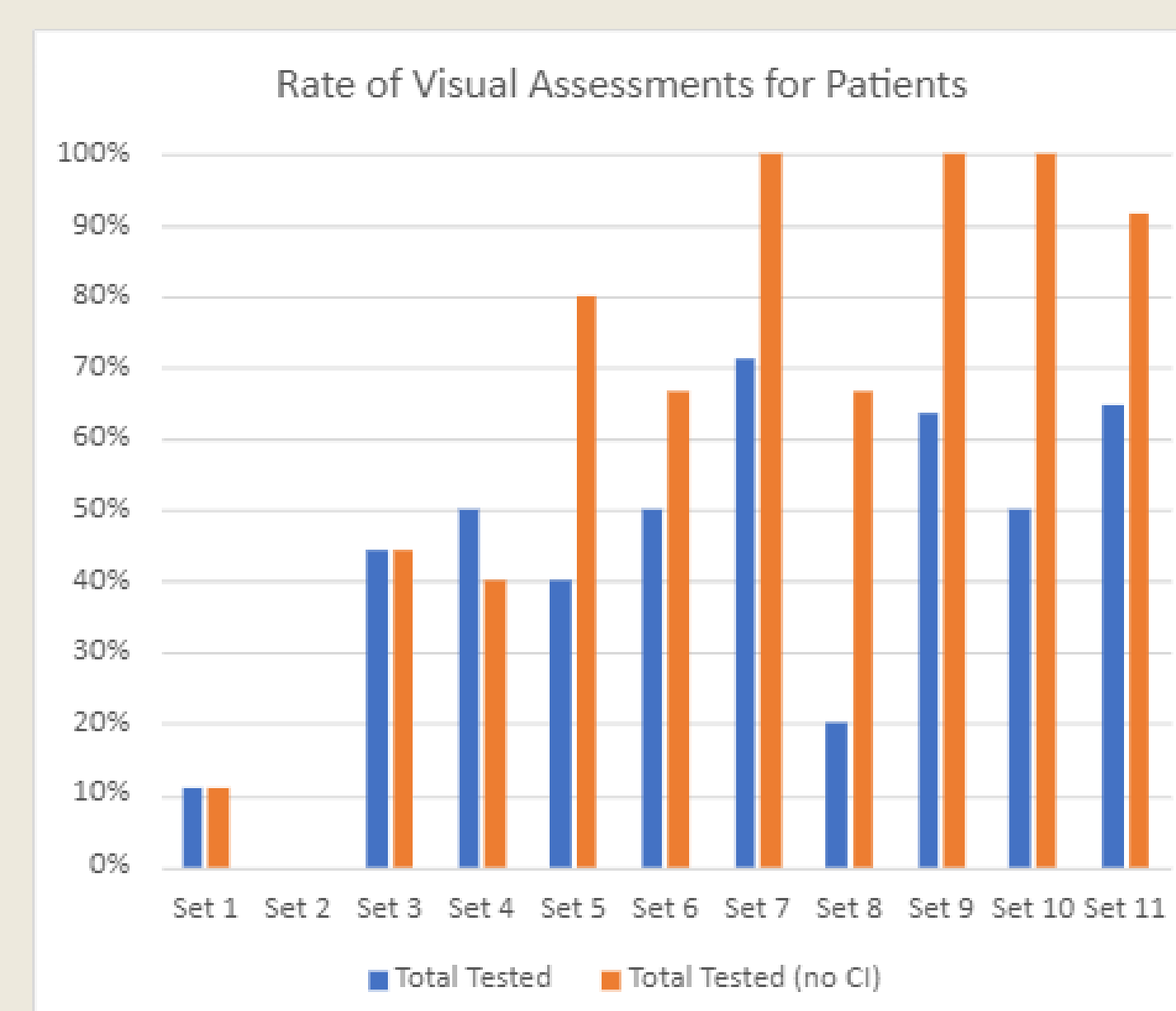


Chart A

This chart demonstrates the total rate of visual assessments. The blue bar indicates all patients and the orange bar indicates all patients without cognitive impairment

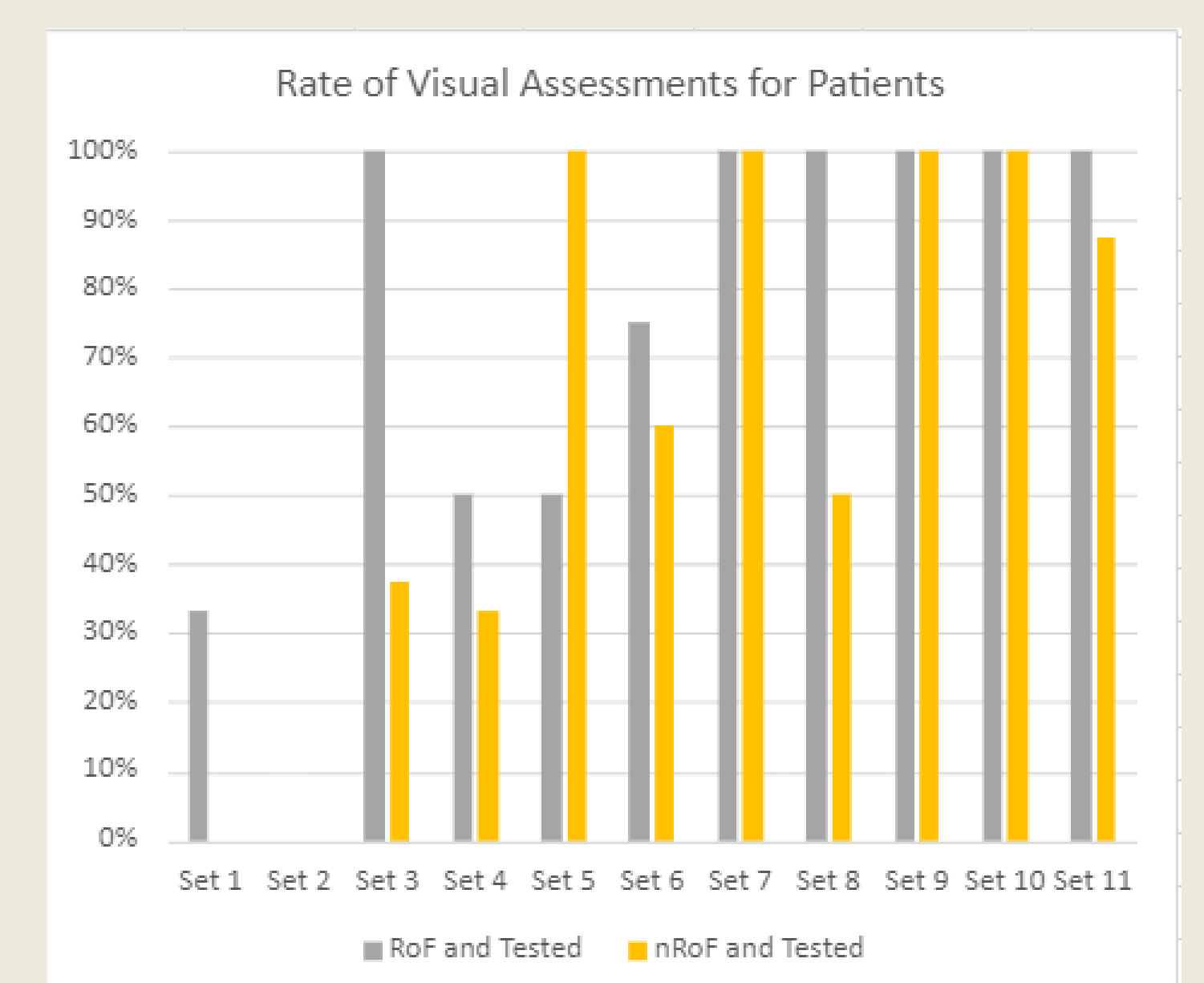


Chart B

This chart only includes patients without cognitive impairment, with the grey bar indicating patients who had a fall likely due to visual impairment and the yellow bar indicating patients who had a fall likely unrelated to visual impairment (nRoF and tested)

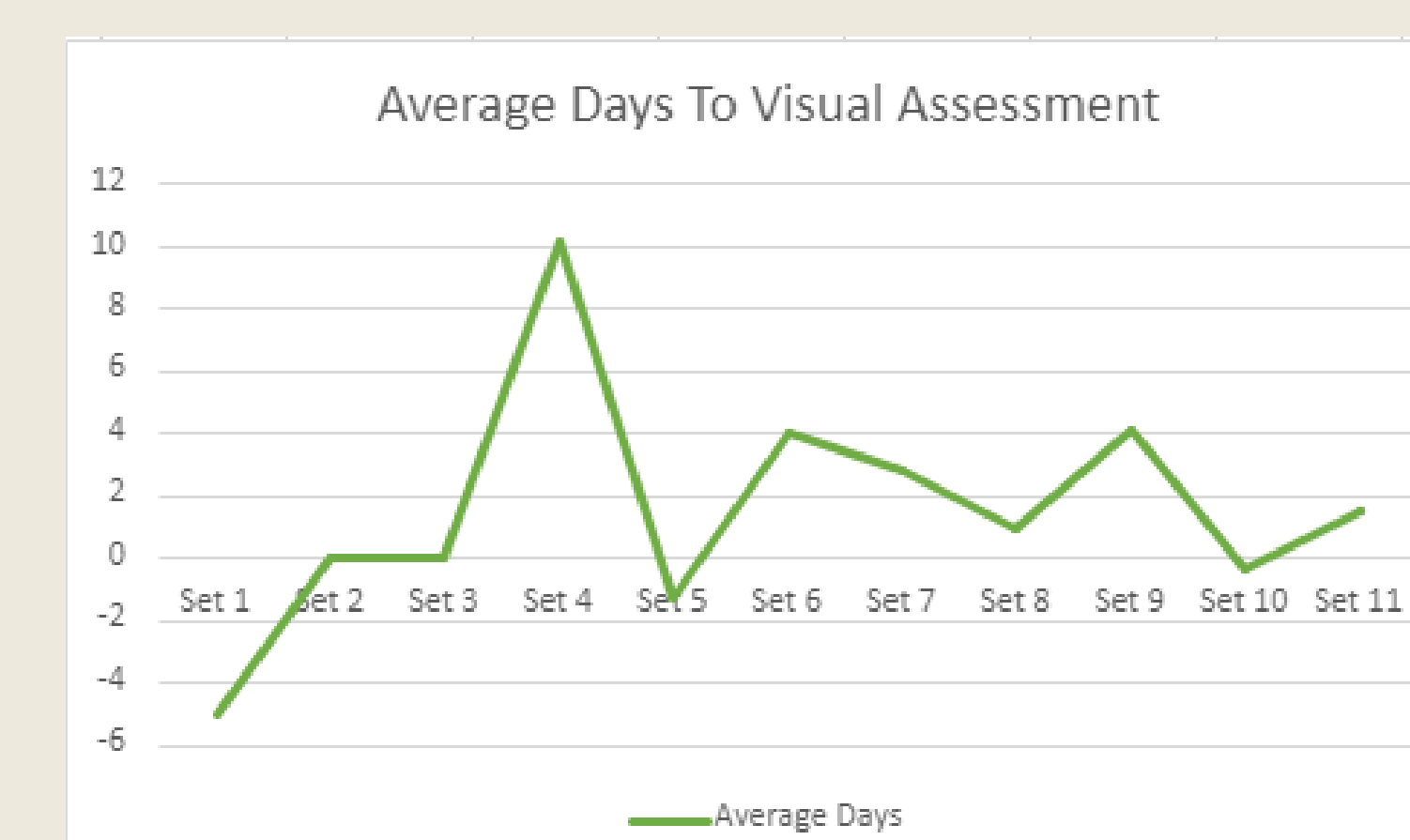


Chart C

This chart demonstrates the average days to visual assessments

Conclusion

Identification of visual impairment reduces recurrent falls and hospital admissions. The project demonstrated the clinical significance of vision assessments - aiding the diagnosis of PSP, prescribing eye drops, and optician follow-up. Utilisation of the modified 'Look Out' tool is a simple way to assess vision on the ward. Posters and teaching sessions improved clinicians' confidence. However implementing sensory impairment in the CGA proforma proved the most sustainable effort. Next steps include implementation in other Geriatric wards and Falls clinics.

Related Literature

NICE Guidance on Comprehensive Geriatric Assessment: www.nice.org.uk/guidance/cg161h text

Look Out Visual Assessment Tool: <https://www.rcplondon.ac.uk/projects/outputs/bedside-vision-check-falls-prevention-assessment-tool>