

A Healthcare Evaluation Of Orthoptic-Led Inpatient Vision Screening For Older Adults Admitted With A Fragility Hip Fracture

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Introduction

This healthcare evaluation focused on the effectiveness of the inpatient vision screening service at Nottingham University Hospitals for ≥65s who are admitted following a hip fracture. Hip fracture care costs the NHS £2 billion annually[1] and the cost of falls resulting from visual impairment is estimated at £25 million annually[2]. The service was developed as a response to NICE Clinical Guideline 161, which recommended a multifactorial risk assessment and intervention for older people who present after a fall, or report recurrent falls or balance problems in the past year. This assessment should include a vision assessment and intervention for defects found.

Methodology

Retrospective data was collected from all patients who had a vision screening assessment between Jan 2015- Dec 2019.

Vision screening is conducted on the Trauma and Orthopaedic wards (T&O) by Orthoptists. Patients aged ≥65 with a hip fracture are screened.

Exclusion criteria: Those already registered as visually impaired, cognitive impairment indicated by an abbreviated mental test score of <6/10, current patients of the macula service, contagious disease, end of life care, cared for on non T&O wards.

Tests performed: Best corrected unocular distance visual acuity, near and distance cover test, pupil check, red reflex test, visual fields to confrontation.

A local protocol determines screening outcome and the outcome is shared with the GP and patient by letter.

Results

Of 3321 patients admitted with hip fracture between 2015-2019, 2033 (61%) were eligible for vision screening [1432 (70%) F, 601 (30%) M, mean age 82.3±7.7, age range 65-102]. 1532 (75%) of those eligible were screened and 501 (25%) of those eligible were not screened, for reasons shown in Figure 1. 19% of eligible patients declined screening, which reduced to 4% with better patient and staff education in 2022. 784/ 1532 (51%) patients screened were found to require onward referral. Of these, 302 (39%) were advised seeing a local optician for potential treatment with glasses and 482 (61%) were advised an Ophthalmology referral for further investigation and medical treatment. Of the Ophthalmology referrals, 383 required referral via the GP, 51 were internally referred and 48 patients refused referral.

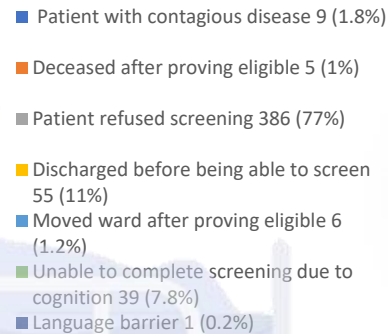


Figure 1 Reasons for eligible patients not being screened

Only 144/383 (38%) patients requiring referral to Ophthalmology via the GP were successfully referred. Including internal referrals, 107/186 (58%) patients attended given appointments. Attendance to appointment is shown in Figure 2. Of those who attended, 98 (92%) were positive for pathology. Cataracts were the most common diagnosis (n=50, 51%), followed by bilateral/ unilateral age-related macular degeneration (n=19, 19%) and bilateral/ unilateral posterior capsule opacification (n=15, 15%).

Overall, 61/ 98 (62%) patients who attended appointments had a treatable condition, 14 of which declined treatment and were discharged. Treatment/ surgery was therefore planned in 47 patients (44%). Treatment included: cataract surgery (n=21), YAG laser (n=10), orthoptic (n=7), intravitreal anti-VEGF therapy (n=1) and topical medication (n=4). Six did not attend, self-discharged or died before treatment.

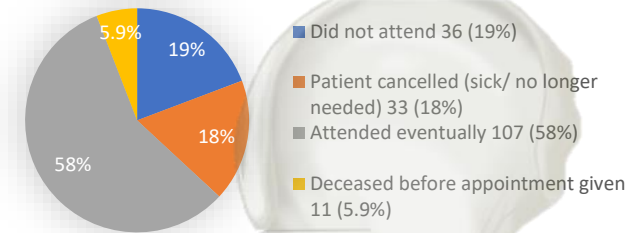
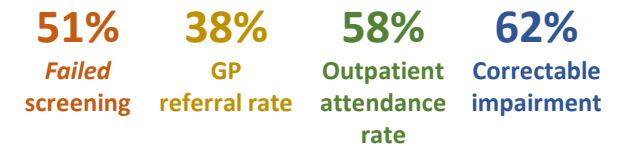


Figure 2 Attendance to Ophthalmology appointments given

Key Conclusions

- There is a large proportion of ≥65s with hip fracture who have impaired vision. This is largely due to cataracts or needing glasses.
- Screening appeared specific, although determined by a limited number of patients who were referred and attended appointments.
- An internal referral pathway to Ophthalmology is being considered to tackle missed referrals.
- Appointment attendance is suboptimal, and reasons for this should be explored.
- There is a need to follow-up patients advised seeing a local optician to complete analysis of the data.
- Vision screening can facilitate early intervention for vision defects to reduce the contribution of impaired vision in further falls[3].
- Orthoptists can play a part in multidisciplinary falls prevention efforts.



REFERENCES [1] Svedbom A, Hernlund E, Ivergård M et al. (2013) Osteoporosis in the European Union: a compendium of country-specific reports. Archives of Osteoporosis. 8(1):137. [2] Boyce T. (2011) Falls - costs, numbers and links with visual impairment., RNIB, RNIB. [3] Harwood RH, Foss AJ, Osborn F et al. (2005) Falls and health status in elderly women following first eye cataract surgery: A randomised controlled trial. British Journal of Ophthalmology 89 (1), 53-59.