

Optometric referral of frail patients at risk of falling

1
CET
POINT

Dr Derek Dunstone BSc (Hons), DOptom, MCOptom

A frail individual is more likely to fall. This article introduces how an optometrist is able to identify frailty and refer for falls prevention advice.



Introduction

Frailty is related to the ageing process in which multiple body systems gradually lose their in-built reserves. Around 10% of people aged over 65 years have frailty, rising to between 25-50% of those aged over 85 years.¹ A frail individual is more likely to fall and may also suffer from low mood, confusion, social isolation and loneliness.² Falls and fractures in people aged 65 and over in England alone account for over 4 million hospital bed days each year,³ and 5% of all falls lead to fracture and hospitalisation.⁴

There are many different reasons why people fall in later life, each of which may relate to frailty. Patients with an increased risk of falling include: age over 75 years; gait and balance impairment; underlying systemic conditions, such as arthritis, postural hypotension, stroke, diabetes and Parkinson's disease; those taking sedatives; polypharmacy (those taking multiple medications, greater than four); and a history of falling.⁵ Anticholinergics, which are prescribed for a wide range of conditions, including: urinary incontinence, hayfever, chronic obstructive pulmonary disease, and depression, have been linked with increased instances of injurious falls.⁶ Side effects include dizziness, confusion and cognitive impairment. Anticholinergic burden (ACB) is determined by identifying all anticholinergic medicines that a patient is taking.

Each drug is given a score and a medication review, with the general practitioner (GP) or pharmacist, could be considered, if the patient's ACB is three or more for several of the scales available.⁷⁻⁹ Where patients are found to be at high risk of falls and are taking anticholinergic medicines the GP may consider replacing the medicine with an alternative treatment that does not have an ACB.

The good news is that there are opportunities for intervention. Falls prevention can reduce the number of falls and often involves improving strength and balance with a programme of exercises. Group or home-based exercise can reduce the risk of falls by 15-22%.⁴

Any interaction between an older person and a health professional should include an assessment which helps to identify if the individual has frailty.² A routine eye examination includes ascertaining the current general health of the patient and medications taken,¹⁰ and may also include an assessment of frailty. Indeed, the College of Optometrists recommends that optometrists identify and support patients at risk of falls.⁵

Identification of frailty

Suitable tests to identify frailty include:

1. Slow gait speed: taking more than five seconds to walk four metres using usual walking aids if appropriate, or
2. Timed up and go test (TUGT): with a cut-off score of 10 seconds to get up from a chair, walk three metres, turn around and sit down.²

Accuracy of diagnosis is increased if the patient also scores three or more using the PRISMA 7 questionnaire (*see Figure 1*).¹¹ Using this approach can help to exclude some false positives, for example, otherwise fit older people with isolated knee arthritis causing slow gait speed.² A nine-point clinical frailty scale developed by Rockwood^{12,13} is a method of grading frailty and is available in a partly pictorial form along with the following descriptions:

- Very fit: robust, active and exercise regularly
- Vulnerable: symptoms limit activities and tired during the day
- Mildly frail: evident slowing, frailty impairs walking outside alone, meal preparation and housework
- Severely frail: completely dependent for personal care due to physical or cognitive problems.

Figure 1

- 1 Are you more than 85 years?
- 2 Male?
- 3 In general do you have any health problems that require you to limit your activities?
- 4 Do you need someone to help you on a regular basis?
- 5 In general do you have any health problems that require you to stay at home?
- 6 In case of need, can you count on someone close to you?
- 7 Do you regularly use a stick, walker or wheelchair to get about?

(Program of Research to Integrate Services for the Maintenance of Autonomy Screening questions)

Answering 'Yes' to any answer counts as a positive response. Although answering 'Yes' to Q6 would seem to suggest that if the patient has access to help you are less likely to fall, it is actually highlighting that a need is being met by a relative/friend but independence and self-reliance has been lost. Thus three or more 'yes' answers from the seven questions would suggest increased risk of frailty and potential need for investigation.

Figure 1 PRISMA 7 questions

Present optometric intervention

A previous study investigating falls prevention by optometrists considered optimal optical correction and referral for ocular disease or low vision. Increased falls was found in the group receiving optometric intervention, although this study did not include referral in respect of frailty or medications.¹⁴ Professor David Elliott summarised the evidence for how optometrists can identify patients at risk of falls, which included: polypharmacy, sedatives, dementia, diabetes, Parkinson's and Meniere's disease.¹⁵ Morrison-Fokken and Dunne identified a lack of a structured approach to falls risk assessment in optometric practice and established that optometrists would welcome a falls risk assessment tool.¹⁶ The College of Optometrists has provided a useful check list to help identify patients at risk of falls,¹⁷ which includes age over 75 years, polypharmacy and history of previous falls, but does not include advice regarding grading of frailty.

Optometric factors to reduce the risk of falling include advising correction of significant ametropia,¹⁵ and avoiding changes in refractive correction of more than 0.75D.¹⁴ Long term wearers of bifocals or varifocals are recommended not to wear them when walking about outside if they become at greater risk of falling but continue to remain active. Patients with minimal refractive error could be advised to take glasses off when outdoors. Patients with a significant refractive error could be advised to obtain an additional distance single vision pair for use outdoors. It is recommended to avoid prescribing bifocal, multifocal or varifocal lenses to patients at risk of falling who have never worn them before.^{15,18} It has been proposed that stair gait may be safer with an intermediate reading add, for example an add of +1.00D, rather than full addition multifocals to provide less distortion and clearer vision for steps

and stairs.¹⁹ Advice can also be given on changes around the home, such as improving lighting, removing rugs and mats, increasing the contrast between dark and light surfaces, and wearing non-slip footwear or using a walking stick.⁵

The role of an optometrist in falls prevention thus commonly involves appropriate spectacle prescribing and dispensing, practical home and lifestyle advice,^{5,15,16} and referral when necessary. Patients should be referred to an eye clinic for ophthalmological opinion where appropriate when treatable eye disease is present. Optometric intervention by appropriate optical correction and referral for ophthalmological treatment could significantly reduce the number of falls.²⁰ A tool is available for performing vision assessment for falls prevention even if the patient is confined to bed.²¹ This is a simple screening test predominantly for non-optometric staff, needing minimal training, and ascertains when a thorough eye examination is indicated. The tool includes an assessment of vision, visual fields and a series of questions. It is recommended to be used regularly and especially if the patient's health changes or they have a fall.

Suffolk frailty referral pathway

Referral can also be made by an optometrist for falls risk assessment to any of the following professions or organisations, if provisional diagnosis of frailty has been made or risk factors for falls are present:

- Local community-based falls prevention exercise programme: classes to increase strength and balance; support to increase confidence and independence at social events. This service is often provided by charitable organisations funded by service users and local government. An assessment of the patient is made initially by trained therapists
- Falls assessment/therapy unit (part of the NHS Community Health Care): for a falls assessment in the patient's home by an occupational therapist, and provide therapy if required
- GP: may consider onward referral to various clinics including elderly medicine, community matron or old age psychiatry
- Local council social care services.

An optometrist can refer directly to any of these agencies, or *via* the GP, depending on local arrangements. Referral between falls teams and optometrists improves the patient pathway and fosters clinical continuity.⁵

The author, in conjunction with Suffolk Local Optometric Committee (LOC) and other key stakeholders, introduced a referral pathway for frail patients at risk of falling in Suffolk in September 2017 (see Figure 2).²² Optometrists

Figure 2

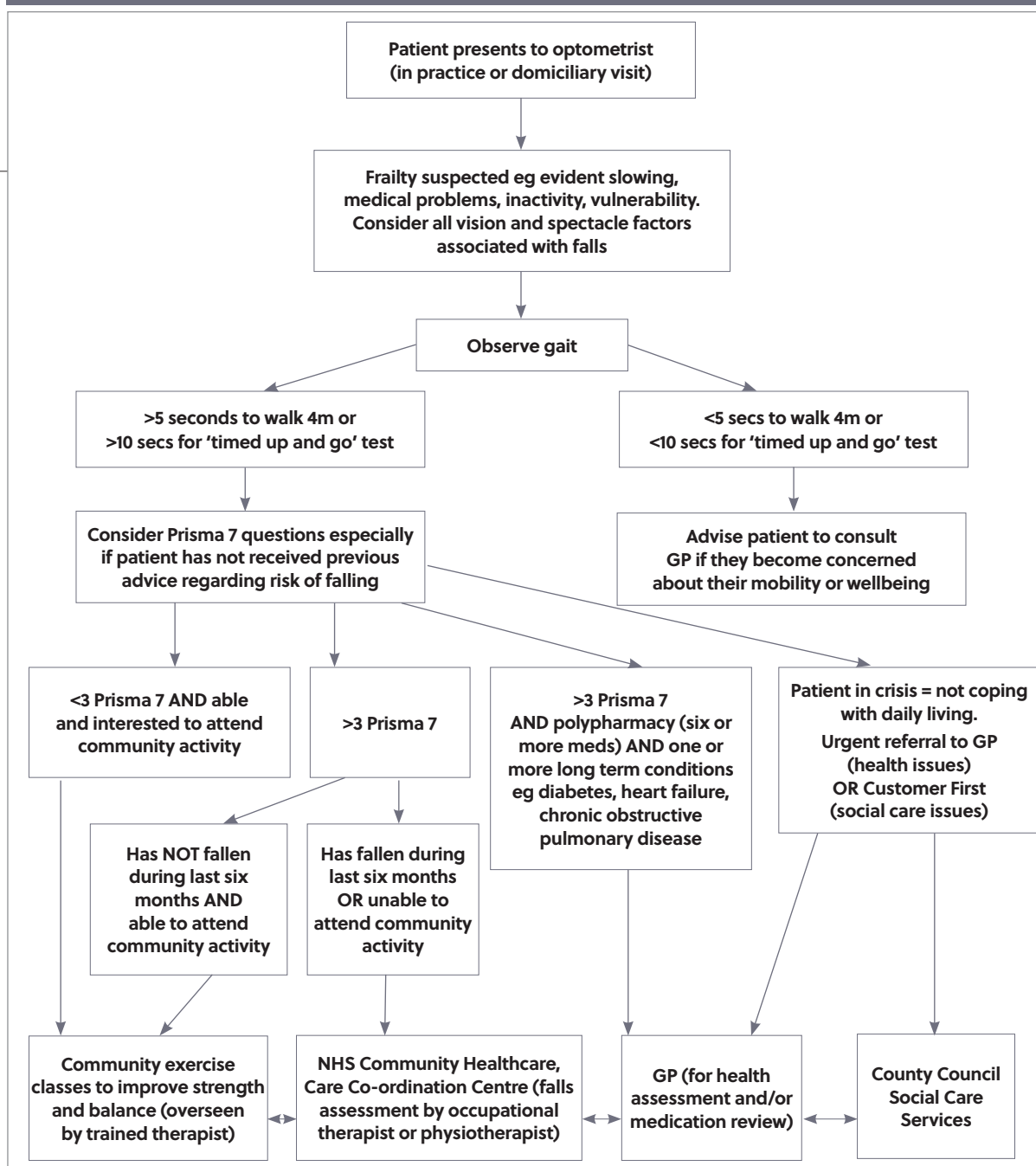


Figure 2 Referral pathway for frail patient at risk of falling seen by optometrist

had not made referrals previously to falls services in Suffolk.²³⁻²⁵ Local contact details for each organisation and how to access referral forms was added to the pathway diagram.

Suffolk optometrists were invited to make a provisional diagnosis of frailty based on observing the speed and ease by which the patient is able to walk and by asking the additional PRISMA 7 questions. The optometrist may be alerted to the possibility of frailty when they first meet the patient in the waiting room if signs are evident of slowing or vulnerability. An estimation of the speed of gait or TUGT is then made as the patient moves to

the consulting room chair. The PRISMA 7 questions are asked during the consultation if the patient took more than five seconds to walk four metres, or greater than 10 seconds for the TUGT. The patient can then be referred if considered to be frail and at risk of falling. The referral pathway was provided for guidance only and ultimately the decision regarding whether to refer, and to whom, was the choice of the practitioner and patient. The patient may be issued with a leaflet at the time of referral regarding reducing the risk of falling,^{17,26} and supplied with details of useful contacts including local branch details (see panel, page 78).

Useful contacts details for patients

- Age UK (www.ageuk.org.uk, 0800 169 6565): including leaflet, 'Staying steady – keep active and reduce your risk of falling'
- British Red Cross (www.redcross.org.uk): practical and emotional support at home to help people regain independence
- NHS Choices (www.nhs.uk): information and advice on NHS services, healthy living and a wide range of health conditions.

Participating optometrists in the pathway gain consent from their patient to share information with the GP and other falls prevention agencies following the eye examination. Referral is not submitted if the patient is unwilling or if investigations regarding frailty and/or falls prevention are already in place.

There is no need for participating optometrists to perform additional tests or conduct the examination outside of General Optical Council regulations relating to sight testing.²⁷ Part of the referral criteria in the Suffolk-based scheme was polypharmacy, which was defined by key stakeholders as when six or more medications were taken. It is expected that medication is recorded at each eye examination,²⁸ and the optometrist could also consider ACB if desired. Patients are also able to self-refer to NHS falls prevention services in many areas of the UK.

Conclusion

The Suffolk frailty referral pathway is a new approach. Once the pathway has been utilised by optometrists in Suffolk or elsewhere, an audit will be required in order to explore the standard of this service with the following aims:

- To establish whether GPs and other agencies appreciate an optometric referral when their patients are identified as being frail and at risk of falling during an optometric consultation
- To ascertain whether referral results in improvement in patient wellbeing
- To investigate the proportion of patients found to require a referral to various agencies due to frailty.

It is recognised by the College of Optometrists that optometrists 'could play a significant part in reducing the number of falls'⁵ and referral of frail patients is another way our profession is able to help. Identification of frailty by an optometrist is useful as it influences spectacle prescribing, dispensing, advice given and consideration for referral. The success of referral of frail patients will depend on local agreement with other health care practitioners and availability of accessible and patient friendly exercise and assessment services. ●

About the author

■ **Derek Dunstone** has worked in his own independent practice since 1991. He is a College of Optometrists examiner, assessor and OSCE development team member. He is also an associate adviser to the Parliamentary and Health Service Ombudsman and active Local Optometric Committee member.

Acknowledgements

The author would like to acknowledge the advice from Lindsay Bennett and Julie Stokes (ActivLives), Sarah Hedges (head of therapies, Suffolk Community Healthcare), Anita Walkinshaw (falls prevention co-ordinator, Suffolk Community Healthcare), Dr Mark Hainsworth (general practitioner, Bildeston Health Centre), Dr Amy Sheppard PhD MCOptom SFHEA (senior lecturer, Aston University), Renee Ward (falls prevention nurse, Ipswich Hospital NHS Trust), Dr Samuel J Blows, MBChB MRCP (consultant in elderly medicine, Ipswich Hospital NHS Trust), Dr Jane Shoote (consultant physician, Ipswich Hospital NHS Trust and Suffolk LOC).

Exam questions and references

Under the enhanced CET rules of the GOC, MCQs for this exam appear online at www.optometry.co.uk. Please complete online by midnight on 7 September 2018. You will be unable to submit exams after this date. Please note that when taking an exam, the MCQs may require practitioners to apply additional knowledge that has not been covered in the related CET article.

CET points will be uploaded to the GOC within 10 working days. You will then need to log into your CET portfolio by clicking on 'MyGOC' on the GOC website (www.optical.org) to confirm your points.

Visit www.optometry.co.uk, and click on the 'Related CET article' title to view the article and accompanying 'references' in full. Clicking on 'MyGOC' on the GOC website (www.optical.org) to confirm your points.

Course code: C-59822 Deadline: 7 September 2018

Learning objectives



- Be able to elicit relevant detail from patients at risk of falls (Group 1.1.2)
- Be able to modify care and treatment for patients at risk of falls (Group 2.1.5)
- Take into account the frailty of patients when making dispensing decisions (Group 4.1.5)



- Be able to elicit relevant detail from patients at risk of falls (Group 1.1.2)
- Be able to modify care and treatment for patients at risk of falls (Group 2.1.5)
- Take into account the frailty of patients when making dispensing decisions (Group 4.1.2)