Dr Derek J Dunstone BSc(Hons) DOptom MCOptom
3 Queen Street, Hadleigh, Ipswich IP7 5DZ
Tel 01473 823755 derek@dunstoneinsight.com

Optometric referral of frail older people at risk of falling

Dr Derek Dunstone BSc (Hons) DOptom MCOptom,
Suffolk Local Optometric Committee, March 2017
derek@dunstoneinsight.com

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 a quarter and a half of those aged over 85 years. A frail individual is more likely to fall and may also suffer from low mood, confusion, social isolation and loneliness. (1)

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), a history of falling. (2) Falls and fractures in people aged 65 and over account for over 4 million hospital bed days each year in England alone (3) and 4% of all falls result in significant injury. (4)

The good news is that there are opportunities for intervention. Falls prevention can reduce the number of falls by 15-30% (4) and often involves improving strength and balance with a programme of exercises.

Any interaction between an older person and a health professional should include an assessment which helps to identify if the individual has frailty. (1) A routine eye examination includes ascertaining the current general health of the patient and medications taken (5) and may also include an assessment of frailty. Indeed, the College recommends optometrists identify and support patients at risk of falls (6) and frailty is a risk factor for falls.

Suitable tests for frailty include:

1. Slow gait speed: taking more than 5 seconds to walk 4 m using usual walking aids if appropriate, or
2. Timed up and go test: with a cut off score of 10 seconds to get up from a chair, walk 3m, turn round and sit down.(1)

Accuracy of diagnosis is increased if the patient also scores 3 or more using the PRISMA 7 questionnaire.(7) The seven questions are listed in Appendix 1. This would help exclude some false positives (e.g. otherwise fit older people with isolated knee arthritis causing slow gait speed).(1) The nine point Clinical Frailty Scale developed by Rockwood(8) is a pictorial method of grading frailty. (Appendix 2) This has been designed for use by medics but may be useful as supporting information.

The role of an optometrist in falls prevention involves appropriate spectacle prescribing and dispensing, practical home and lifestyle advice (2, 9, 10) and referral when necessary. Patients are referred to an eye clinic for ophthalmological opinion when treatable eye disease present or Low Vision advice required. Optometric intervention by appropriate optical correction and referral for ophthalmological treatment could significantly reduce the

number of falls.(11) An assessment tool is available for performing vision check for falls prevention even if the patient is confined to bed.(12) Professional guidance in respect of

falls prevention and a specific practitioner bespoke tool is not available but felt necessary by Morrison-Fokken & Dunne(9).

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

- Local community based falls prevention exercise program: classes to increase strength and balance, support to increase confidence and independence with social events. Charitable organisation funded by service users and local government. An assessment of the patient is made initially by an OTAGO trained (or similar) therapist,
- Falls Assessment/Therapy Unit (part of the NHS Community Health Care): for a falls assessment in the patients home by an Occupational Therapist, and therapy if required,
- General Medical Practitioner (GMP): may consider onward referral to various clinics including geriatric medicine or old age psychiatry, or
- Local County Council Social Care Services.

An optometrist can refer direct to any of these agencies or via GMP, depending on local arrangements. Referral between falls teams and optometrists would help the patient pathway and foster clinical continuity.(2) Referral to a Community Matron is another option but this route has not been added to the referral pathway to keep the scheme simple. GMP's are able to refer to the Community Matron as appropriate using a referral form which asks for a frailty score using the Rockwood grading.(8)

A previous study investigating optometric intervention found increased falls in the study group although this included mainly optical aspects and did not include referral to GMP in respect of frailty or medications.(13) Prof David Elliott summarised the evidence for how optometrists can identify patients at risk of falls and included polypharmacy, sedatives, Parkinson's and Meniere's disease. (10) Morrison-Fokken & 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.(9) The College of Optometrists has provided a most useful check list to help identify patients at risk of falls(6) but does not include advice regarding grading of frailty. It is stated by the College that, optometrists "could play a significant part in reducing the number of falls" (2) and I am proposing a method of helping optometrists decide the appropriate referral pathway for falls prevention in Suffolk. Optometrists have not made any referrals previously to falls services in Suffolk.(14-16)

Methods

A referral pathway for frail patients was designed following discussions with key stakeholders. (Appendix 3) This was launched to Suffolk optometrists at a meeting on March 22nd 2017 and via the Suffolk Local Optometric Committee (LOC) newsletter. This information and referral forms are available on the LOC website www.suffolkloc.org.uk

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 to the consulting room

chair and by asking a few additional PRISMA questions. No additional tests were required. If necessary patients were referred to a Local Community Falls prevention exercise programme, an Occupational Therapist for an NHS Falls Assessment, General Medical Practitioner or local Council Social Care Services. The referral pathway was for guidance only and ultimately the decision regarding if a referral was submitted, and to whom, was the choice of the practitioner and patient. The patient may be issued with leaflet at the time of referral regarding reducing the risk of falling and details of useful contacts (Appendix 4). The College of Optometrists have produced the leaflet, 'Ageing vision and falls'.(17)

Investigations will be made as to whether optometric referrals in respect of falls risk and/or frailty were felt to be useful and appropriate by the patient and agency concerned. The referral criteria for referral to each agency will be modified if this proves necessary from the ongoing audit.

Participating optometrists will need to gain consent from their patient to share information with the GMP and other falls prevention agencies following the eye examination. There is no need for participating optometrists to perform additional tests or conduct the examination outside of Regulations.(18) Part of the referral criteria is polypharmacy. It is expected that medication is recorded at each eye examination (19, 20) and there is no reason why an optometrist should not observe the patients gait or ask additional questions to investigate for frailty.

Questions

If you have any questions regarding referral of frail patients at risk of falling please contact Derek Dunstone (derek@dunstoneinsight.com).

Acknowledgements

Thank you for much appreciated advice from Lindsay Bennett (ActivLives Development Officer), Sarah Hedges (Head of Therapies, Suffolk Community Healthcare), Anita Walkinshaw (Falls Prevention Co-ordinator, Suffolk Community Healthcare), Dr Mark Hainsworth (General Medical Practitioner, Bildeston Health Centre), Renee Ward (Falls Prevention Nurse, Ipswich Hospital NHS Trust) and, especially, Dr Jane Shoote (Consultant Physician, Ipswich Hospital NHS Trust).

Dr Derek J Dunstone BSc(Hons) DOptom MCOptom
3 Queen Street, Hadleigh, Ipswich IP7 5DZ
Tel 01473 823755 derek@dunstoneinsight.com

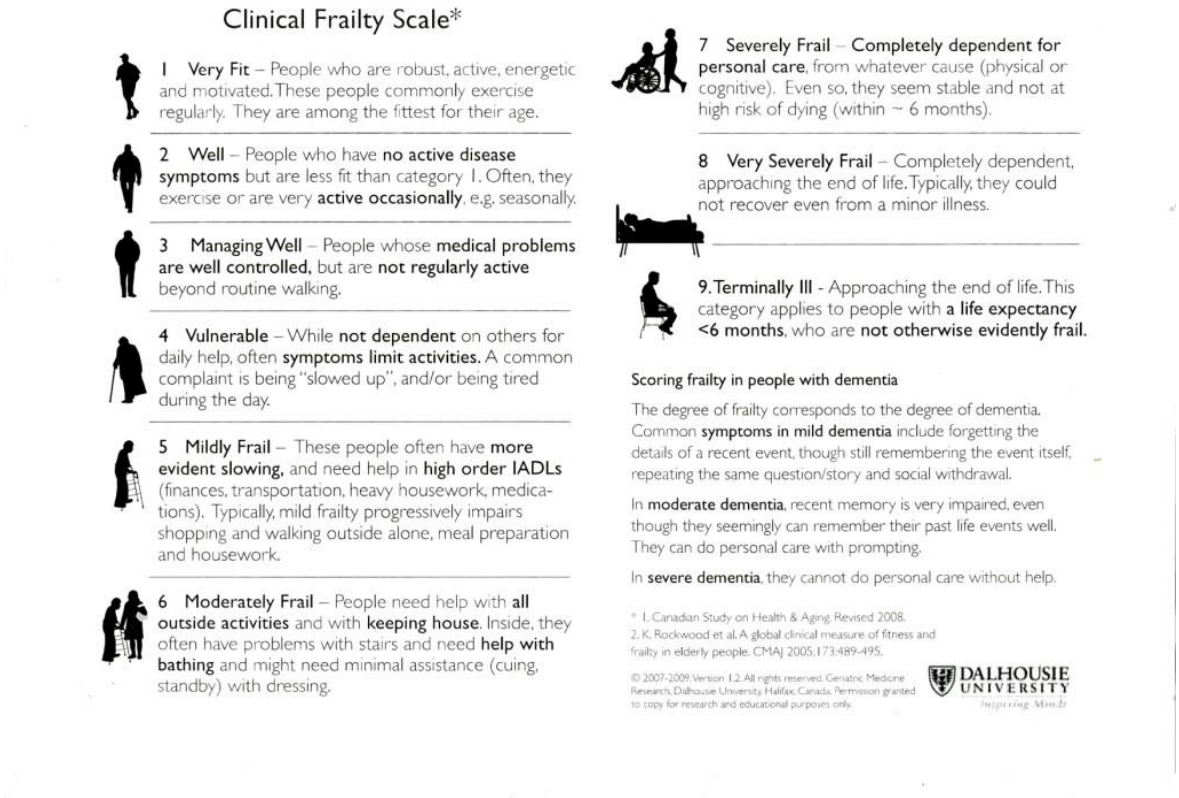
Appendix 1; PRISMA 7 Questions

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 3 or more 'yes' answers from the 7 questions would suggest refer on for further review.(21)

Appendix 2; Clinical frailty Scale by Rockwood et al



Clinical Frailty Scale*

1 **Very Fit** – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.

2 **Well** – People who have **no active disease symptoms** but are less fit than category 1. Often, they exercise or are very **active occasionally**, e.g. seasonally.

3 **Managing Well** – People whose **medical problems are well controlled,** but are **not regularly active** beyond routine walking.

4 **Vulnerable** – While **not dependent** on others for daily help, often **symptoms limit activities.** A common complaint is being "slowed up", and/or being tired during the day.

5 **Mildly Frail** – These people often have **more evident slowing,** and need help in **high order IADLs** (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.

6 **Moderately Frail** – People need help with **all outside activities** and with **keeping house.** Inside, they often have problems with stairs and need **help with bathing** and might need minimal assistance (cuing, standby) with dressing.

7 **Severely Frail** – **Completely dependent for personal care**, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).

8 **Very Severely Frail** – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.

9. **Terminally Ill** - Approaching the end of life. This category applies to people with **a life expectancy <6 months**, who are **not otherwise evidently frail.**

Scoring frailty in people with dementia

The degree of frailty corresponds to the degree of dementia. Common **symptoms in mild dementia** include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In **moderate dementia**, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.

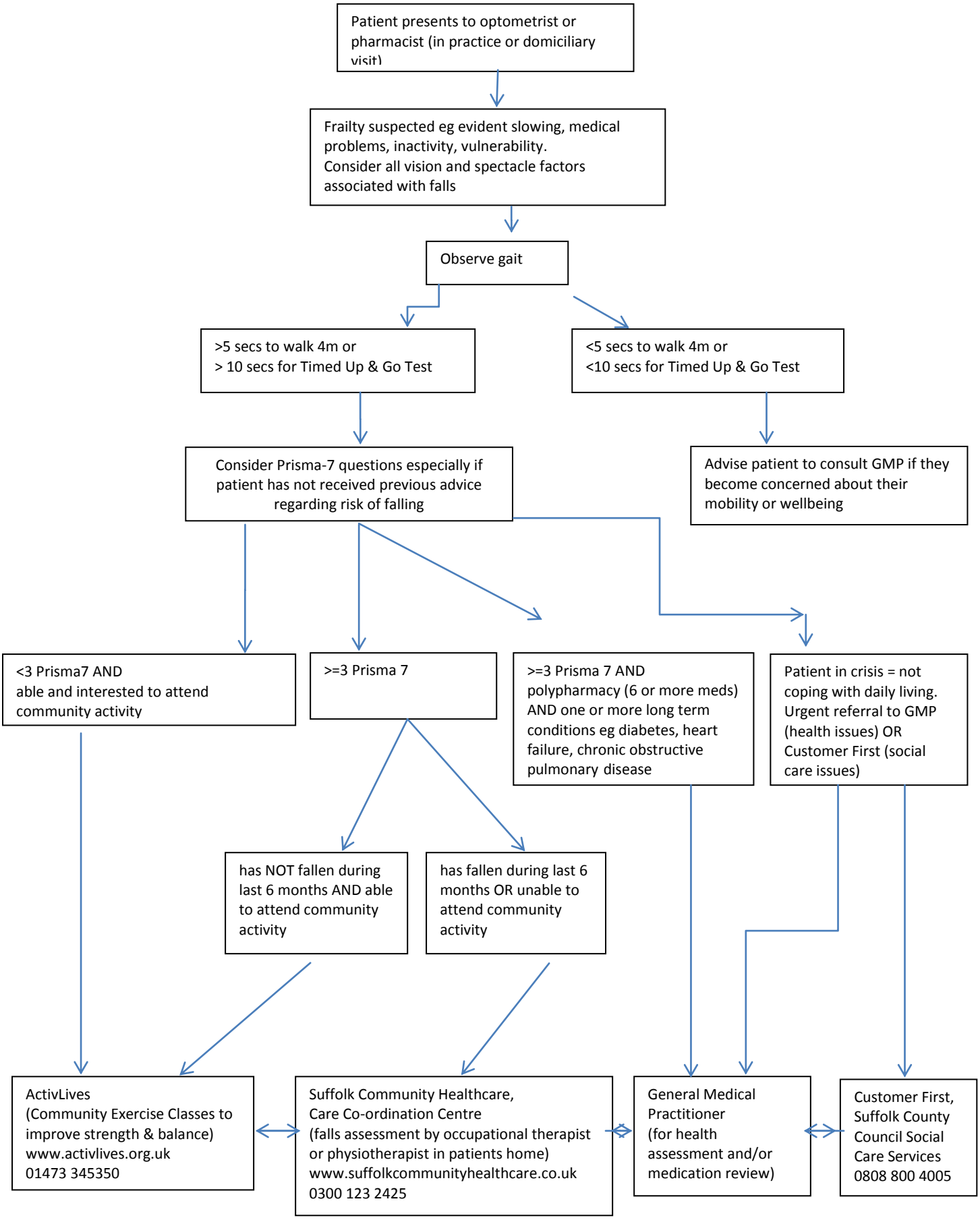
In **severe dementia**, they cannot do personal care without help.

* 1. Canadian Study on Health & Aging, Revised 2008.
2. K. Rockwood et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.

DALHOUSIE UNIVERSITY
Inspiring Minds

Dr Derek J Dunstone BSc(Hons) DOptom MCOptom
3 Queen Street, Hadleigh, Ipswich IP7 5DZ
Tel 01473 823755 derek@dunstoneinsight.com

Appendix 3: Referral Pathway for frail patient at risk of falling seen by optometrist



Dr Derek J Dunstone BSc(Hons) DOptom MCOptom
3 Queen Street, Hadleigh, Ipswich IP7 5DZ
Tel 01473 823755 derek@dunstoneinsight.com

Appendix 4. Useful contacts

- Age UK (www.ageuk.org.uk, 0800 169 6565); eg leaflet, 'Staying steady – keep active and reduce your risk of falling'. Ipswich Helpdesk 01473 257039.
- British Red Cross (www.redcross.org.uk); practical and emotional support at home to help people regain independence. Ipswich branch 01473 702485.
- Age Concern Suffolk; helplines Ipswich 01473 257039, Bury St Edmunds 01284 757750.
- NHS Choices (www.nhs.uk); information and advice on NHS services, healthy living and a wide range of health conditions.

References

1. British Geriatrics Society. Fit for Frailty. accessed 21Oct2016. 2014;http://www.bgs.org.uk/campaigns/fff/fff_full.pdf(June).
2. College of Optometrists. Focus on Falls. Report. May2014.
3. Royal College ofPhysicians. Falling Standards, broken promises: report of the national audit of falls and bone health in older people 2011.
4. Dept of Health. Falls and fractures ,Developing a local joint strategic needs assessment http://webarchivenationalarchivesgovuk/20130107105354/http:/wwwdhgovuk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@pg/documents/digitalasset/dh_103147pdf. 2009;accessed 20 Jan 2017(July 9th).
5. College of Optometrists. The routine eye examination, Guidance A41. http://guidancecollege-optometristsorg/guidance-contents/knowledge-skills-and-performance-domain/the-routine-eye-examination/#open:65,66. 2016;accessed27aug2016.
6. College of Optometrists. Focus on falls - Patient checklist. 2014,June(accessed 1 Dec 2015).
7. Hebert R, tourigny A. Frail elderly patients, New model for integrated service delivery. CanadianFamilyPhysician. 2003;49(Aug, accessed 7 dec 2016).
8. Rockwood K, Song X, MacKnight C, Bergman H, Hoga D, McDowell I, et al. A global clinical measure of fitness and frailty in elderly people. CMAJ. 2005;173(5):489-95.
9. Morrison-Fokken AD, M. Falls risk assessment in optometric practice: an introduction to non-visual and visual risk factors. Optometry in Practice. 2014;15(2):39-48.
10. Elliott PD, Professor of Clinical Vision Science, University of Bradford, editor Can optometrists help to prevent falls? . Optometry Tomorrow; 2015: numerous notes below.
11. Buckley J, Elliott D. Ophthalmic Interventions to Help Prevent Falls. Geriatrics and Aging. 2006;9(4):278-80.
12. Royal College of Physicians. Bedside vision check for falls prevention: assessment tool. https://wwwrcplondonacuk/projects/outputs/bedside-vision-check-falls-prevention-assessment-tool. 2017, 23 Jan;accessed12March2017.
13. Cumming RG, Ivers R, Clemson L, Cullen J, Hayes MF, Tanzer M, et al. Improving vision to prevent falls in frail older people: a randomized trial. J Am Geriatr Soc. 2007;55(2):175-81.
14. Shoote, Dr J., Consultant Physician, The Ipswich Hospital NHS trust, verbal communication. 10 Jan. 2017.

15. Bennett L. Meeting at 3 Queen Street with ActivLives Development Officer. Jan 4. 2017;veral communication.
16. Suffolk Community Healthcare. verbal communication, meeting 9 Feb. 2017.
17. College of Optometrists. Ageing vision and falls. Patient information leaflet. 2016.
18. General Optical Council. Sight Testing, (Examination and Prescription) (no 2) regulations s 3. 1989 (http://www.optical.org/en/about_us/legislation/rules_and_regulations.cfm).
19. College ofOptometrists. What to record, Guidance A20. http://guidancecollege-optometristsorg/guidance-contents/knowledge-skills-and-performance-domain/patient-records/what-to-record. 2015;accessed 28 Dec 2015.
20. Collegeof Optometrists. Conducting the routine eye examination, Guidance A41. http://guidancecollege-optometristsorg/guidance-contents/knowledge-skills-and-performance-domain/the-routine-eye-examination/conducting-the-routine-eye-examination. 2015;accessed 28 Dec 2015.
21. Shoote J. email communication 24 Jan Consultant Physician, The Ipswich Hospital NHS Trust. 2017.