module 253

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Welcome to the two hundred and fifty third module in the *Pharmacy Magazine* Continuing Professional Development Programme, which looks at **falls prevention and osteoporosis**.

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forthismodule

GOAL

To review the prevention of falls in older people and the management of osteoporosis.

OBJECTIVES:

After completing this module you should:

- Be aware of current treatments for osteoporosis and the medicine groups that are implicated in falls
- Understand the evidence in support of exercise as an intervention to prevent falls and fractures
- Be aware of the role community pharmacy can play in preventing falls and fractures.

First in professional development pharmacy magazine

the continuing professional development programme

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Falls prevention and osteoporosis

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Introduction

As people get older, they may fall more often. While falls can obviously result in physical injury that can be serious (e.g. fracture and head injury), they can also have psychological effects, such as a fear of falling itself. This loss of confidence can then lead to a self-restricted reduction in physical activity and social interactions.

Falls are costly to the individual and to society because they lead to additional GP visits, ambulance call-outs, A&E attendances, hospital stays and increased social care costs. Falls cost the NHS more than £2bn a year[1] with additional costs accrued due to caring time and absence from work.

As the number of older people in society increases, the impact of falls is likely to grow. Various strategies to prevent falls have therefore become part of health and social care policy in the UK.

Facts about falls and fractures[2]

- The incidence of falls is increasing by about 2 per cent each year
- In England, the number of people aged over 65 years is due to rise by a third by 2025, the number of people over 80 will double and the number aged over 100 will increase four-fold
- Around one-third of people older than 65 years and nearly half of those older than 80 years fall at least once a year. Between 10 and 25 per cent sustain a serious injury
- Most fractures in older people occur as a result of falling from standing height
- Hip fractures are the commonest cause of accident-related death in older people
- Twenty per cent of people die within four months of a hip fracture and 30 per cent within one year
- One-third of people become totally dependent following a hip fracture.

What makes people more prone to falling?

Falls are not a normal part of ageing and there are many causes. These include:

- Side-effects of medicines
- Impaired postural stability linked to diseases (such as arthritis, stroke and Parkinson's disease)
- Sight, hearing or cognitive impairment
- Poor mobility, balance and co-ordination due to inactivity.

Environmental factors include:

- A lack of, or poorly positioned, hand rails
- Uneven or slippery flooring
- Poorly fitted rugs and mats
- Poor lighting
- Poorly fitting footwear.

Often a combination of these factors leads to falls, so a multifactorial risk assessment (including medication reviews and home assessment) is needed to identify the risks. Consequently, there is a variety of possible solutions (e.g. disease and medicines review, physical alterations in the home, cataract surgery and improved activity).

Osteoporosis

Many people who are at risk of falling also have osteoporosis. This chronic condition weakens bones and makes fracture more likely as a result of a fall. In youth, bone formation exceeds bone resorption, but by the third decade of life, there is a gradual loss of bone mass.

Osteoporosis is therefore usually an age-related disease. It can affect men and women, but women are at greater risk because the decrease in oestrogen production after the menopause accelerates bone loss to a variable degree.[5] Fragility fractures (also called low-trauma fractures) result from mechanical forces that would not normally result in fracture (e.g. a fracture following a fall from standing height or less, or as a result of routine activities such as bending or lifting). Reduced bone density is a major risk factor for fragility fractures.

The prevalence of osteoporosis increases with age from around 2 per cent at 50 years of age to more than 25 per cent at 80 years of age in women.[5] The following people are at high risk of an osteoporotic fragility fracture[5]:

- All women aged 65 years and over, and all men aged 75 years and over
- All women aged 50-64 years and all men aged 50-74 years who have risk factors such as:
  - a previous osteoporotic fragility fracture
  - current or frequent recent use of oral corticosteroids
  - a history of falls
  - a low body mass index (less than 18.5kg/m^2)
  - a smoker
  - an alcohol intake of more than 14 units per week
  - a secondary cause of osteoporosis (e.g. untreated premature menopause, treatment with an aromatase inhibitor, endocrine disorders)
- People younger than 50 years of age with major risk factors:
  - current or frequent recent use of oral corticosteroids
  - untreated premature menopause
  - a previous fragility fracture.

Routine measurement of bone mineral density is not usually recommended. Instead, a risk assessment tool (e.g. FRAX or QFracture) is used to predict fracture incidence over a period of time and to aid decision-making about treatment intervention.[5]

If a person is found to be at intermediate risk, then measuring bone mineral density can help determine whether the person is above or below a threshold requiring intervention.

Medicines that can increase the risk of falling

Medicines that cause adverse effects on the central nervous system or cause postural hypotension, increasing the risk of falls, include:

- **Sedatives**
- **Hypnotics**
- **Anxiolytics**
- **Antihypertensives**
- **Drugs with antimuscarinic effects**
- **Antipsychotics**
- **Antinauseants**
- **Antidepressants**
- **Anti-arrhythmics**
- **Anticonvulsants.**

Polypharmacy, defined as four or more regular medicines, is also a risk factor for falling.[3]
Gradual withdrawal of psychotropic medication has been shown to reduce falls.[4]

Medicines used to prevent or treat osteoporosis

Bisphosphonates

NICE recommends a bisphosphonate (e.g. alendronate 10mg once daily or 70mg once weekly, or risedronate 5mg once daily or 35mg once weekly) for the treatment of post-menopausal women and men over 50 years of age who have been confirmed by bone scan to have osteoporosis. It also recommends considering treatment for people taking high doses of oral corticosteroids (more than or equivalent to prednisolone 7.5mg daily for three months or longer).[6]

The bisphosphonates inhibit bone resorption and increase bone mineral density by altering osteoclast activation and function. The instructions for taking alendronate and risedronate are relatively complicated. For satisfactory absorption, bisphosphonates need to be taken on an empty stomach (both alendronate and risedronate need to be taken at least 30 minutes before food). Gastrointestinal side-effects are common and the mucosa of the mouth and oesophagus can be irritated.

To avoid such effects, the tablets must be swallowed with an ample glass of water (at least 200ml with alendronate; 120ml with risedronate) and the patient must remain sitting or standing upright for 30 minutes after swallowing the tablet.

Other drugs

If an oral bisphosphonate is not tolerated or contraindicated, the patient may be referred to a specialist for consideration of alternative treatments including zoledronic acid, strontium ranelate, raloxifene, denosumab and teriparatide. HRT may be used to treat women with early menopause (before 40 years of age).[6]

Calcium and vitamin D

People with an inadequate dietary intake of calcium and vitamin D may also be prescribed or sold supplements. People are at risk of vitamin D deficiency if they are aged over 65 years or are not exposed to much sunlight (because they are confined indoors for long periods or they wear clothes that cover the whole body).

For a person with adequate calcium intake (700mg/day) but who is not exposed to much sunlight, vitamin D 10 micrograms daily (400 international units) (without calcium) is recommended.[6] If calcium intake is inadequate, vitamin D 10 micrograms (400 international units) daily with at least 1,000mg of calcium daily is recommended. For elderly people who are housebound or living in a nursing home, 20 micrograms (800 international units) of vitamin D with at least 1,000mg of calcium daily is recommended.[6]

The Scientific Advisory Committee on Nutrition (SACN) earlier this year came out with new guidelines on vitamin D intake, which stated that everyone over one year of age should take 10 micrograms of vitamin D per day.

Duration of therapy

For people who are judged to be at risk of osteoporosis because of oral corticosteroid therapy, treatment with a bisphosphonate and/or calcium and vitamin D is continued until the oral corticosteroid therapy has stopped, after which osteoporotic fragility fracture risk is reassessed to determine the need to continue treatment with a bisphosphonate and calcium and vitamin D.

For all other people, the need for continuing treatment with bisphosphonates is usually reviewed after three to five years. For people who remain at high risk of an osteoporotic fragility fracture, treatment with alendronic acid is usually continued for up to 10 years, and risedronate for up to seven years.[6]

Reflection exercise 1

How could you use the information on your pharmacy's PMR system to identify patients on medicines that might cause falls, or who are on osteoporosis medication and might need help to support adherence?

Sunlight is the main source of vitamin D

Lifestyle advice

People who are at risk of developing osteoporosis or who have established osteoporosis should be advised to:[7]

- Stop smoking
- Avoid excessive alcohol intake (keep to less than two units per day)
- Do regular weight-bearing exercise (e.g. 20 minutes of walking every day or 30 minutes five times per week)
- Avoid immobility
- Avoid excessive dieting and exercise resulting in amenorrhoea (for pre-menopausal women)
- Ensure a balanced calcium-rich diet (700mg daily). The main dietary sources of calcium are dairy products and green vegetables.

Vitamin D is essential for the absorption of calcium; the main source of vitamin D is sunlight. Some 'every day' ways of obtaining vitamin D are:

- Spending 15-20 minutes a day in the sun (from April to October) with hands and face exposed
- Exercising out of doors
- Eating foods rich in vitamin D. The main dietary sources of vitamin D are fortified foods such as margarine and breakfast cereals. Oily (but not white) fish, meat and eggs are naturally rich in vitamin D.

Important role of exercise in preventing falls

Balance impairment and muscle weakness caused by ageing and disuse are the most prevalent modifiable risk factors for falls[2] and therapeutic exercise is the best-tested intervention for reducing falls.[8] There is strong evidence from randomised controlled trials that group exercise classes and exercises individually delivered at home, usually containing some balance and strength training, reduce falls, as does tai chi.[8]

NICE highlights balance and strength exercises as a key component in multifactorial interventions.[9] The charity Age UK estimates that if all over-65s followed a tailored exercise programme, 7,000 unnecessary deaths a year from hip fractures alone could be prevented.[1]

What type of exercise?

For older people in general

Falls prevention exercise needs to focus on strengthening leg and ankle muscles and challenging balance, which means that programmes must include resistance training and exercises done while standing. Effective falls prevention cannot be achieved solely through chair-based programmes/seated gym machines.

The standard advice for a healthy lifestyle has been for people to participate in aerobic activity for 150 minutes every week for heart and bone health.[10] This advice now includes a recommendation to also do strength building physical activities to improve muscle strength at least twice a week.[10] Activities do not need to be done in a gym and can include heavy gardening or dancing (an aerobic exercise that also improves balance) or tai chi (improves balance and strength).

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In order to build and maintain strength and balance, these exercises need to be done regularly and frequently. It is possible to improve muscle strength and balance at any age. The evidence shows that a minimum 'dose' of 50 hours of exercise is needed to prevent falls (which equates to one hour twice a week for six months).[1] Advice should be sought on the correct form and intensity of exercise, and how best to progress.

For people who have already fallen (secondary prevention)

People who have already fallen need the same type of muscle strength and balance exercises but are likely to need more support in the form of specially designed programmes involving controlled movements, perhaps on a one-to-one basis.[11] The two commonest evidence-based programmes for preventing falls in the UK are Postural Stability (FaME/PSI) and Otago.

Facts about exercise for the prevention of falls and fractures[11]

- Balance impairment and muscle weakness are the most prevalent risk factors for falls. Therapeutic exercise is the most effective component of a multifactorial intervention
- A tailored programme for falls prevention can reduce the risk of falls by up to 54 per cent, but not all exercises are effective in preventing falls
- In order to be effective, exercise programmes must:
  - Challenge balance and improve strength through resistance training and exercise in a standing position
  - Be tailored to the individual (i.e. pitched at the right level, taking falls history and medical conditions into account)
  - Be sufficiently progressive
  - Be carried out two to three times a week
  - Be continued over at least 50 hours
  - Be delivered by specially trained instructors.

Falls prevention services

The publication of the National Service Framework for Older People in 2001 led to the development of integrated falls prevention services in the NHS.[12] These multi-professional, multi-agency groups supported by clinical leads from all key areas aimed to prevent future falls and reduce death and disability from fracture, based on national standards and evidence-based guidelines.

As there are many underlying causes for falls and fractures (such as disease, medicines, osteoporosis and the home environment), there are consequently many interventions and services that can be involved in a falls care pathway (e.g. GP, pharmacy, osteoporosis clinic, fracture clinic, A&E). Falls prevention services need to be comprehensive and integrated. There are several examples of such services in the UK:

- Thameside and Glossop falls and osteoporosis service
- Hampshire 'Better Balance for Life'
- Cambridge City falls exercise pathway
- Age UK services around the country.

The NICE guideline on falls in older people recommends that older people in contact with health professionals should be asked routinely whether they have fallen in the past year and about the frequency, context and characteristics of the falls.[9]

NICE advocates that all older people with recurrent falls or who are assessed as being at increased risk of falling should be considered for an individualised multifactorial intervention.

Key messages for patients[2]

- **Falls are a risk as you get older but are not inevitable**
- **Staying active and dealing proactively with any long-term condition will reduce frailty and preserve independence**
- **If you are getting unsteady, seek advice so underlying factors such as eyesight, medications, physical strength and balance can be addressed.**

How can community pharmacy help?

The community pharmacy team can help identify patients who are at risk of falling in several ways:

- Medicines use reviews to identify high-risk medication
- Helping people adhere to osteoporosis therapy
- Health promotion – advice and information for older people and their families on healthy living, including exercises
- Signposting to other services (sight, hearing, exercise)
- Specialist falls services
- Integration with falls prevention services.

Medicines use reviews

A 'usual care' MUR can be used to identify patients on medicines that are known to be associated with falls, with referral to the GP where appropriate.

Randomised controlled trials have shown that effective communication with, and involvement of the prescriber, is a key aspect.

A Cochrane systematic review of interventions for preventing falls in older people identified three trials involving medication review by a pharmacist (or nurse or geriatrician). The trials required implementation by the patients' GPs and were not effective in reducing falls.[8] However, in a fourth trial (a randomised controlled trial in Australia) of an intensive educational programme for primary care physicians by clinical pharmacists that included academic detailing and patient involvement, there was a significant reduction in the risk of falling in older people under their care.[13]

In the trial, a pharmacist visited each doctor twice and provided tailored education on how to conduct medication reviews, with emphasis on benzodiazepines, NSAIDs/COX-2 inhibitors and antihypertensives. Sources of information on prescribing were provided, including one-page laminated desk-size sheets. GPs also received feedback on the number of targeted drugs used by their patients. The doctors received practice incentive payments after completing 10 medication review checklists and were reimbursed for their time with the pharmacist.

It might be possible to integrate the MUR service with a local multi-disciplinary falls prevention service.

Supporting concordance in patients on osteoporosis therapy

There are many reasons why people stop taking osteoporosis therapy:

- They might not understand the benefits
- They might be concerned about side-effects
- They may have difficulty with complicated dosage instructions

Reflection exercise 2

How could you go about making older people aware of the benefits of exercise to increase muscle strength and balance?

Next month's CPD module...

The CPD module will summarise the key therapeutic developments that occurred in 2016.

You can also record in your personal learning log at pharmacymagazine.co.uk

Reflection exercise 3

How might you approach your local GP practice or CCG with a plan to provide a targeted MUR+ service on falls prevention from your pharmacy?

• They might simply forget to take it.

People starting and continuing osteoporosis therapy can be helped to understand the benefits and risks of the treatment and the consequences of not taking it. Questioning the patient will help lead to an understanding about the barriers to taking the therapy and the opportunity to educate, reassure and offer practical solutions. Patients could be helped through a NMS or MUR intervention.

Health promotion and signposting

Older people and their families need to be aware of how to prevent falls and how to access services that reduce the risk of falls. The community pharmacy team can provide information and advice, passively (through information boards and leaflets) and actively through discussion with patients, family members and carers. Information can be provided about suitable local exercise classes and online resources.

How to talk to people about reducing the risk of falls

Many older people are reluctant to accept advice about preventing falls.[14] There are many reasons for this:

- They think it is only relevant to people older and frailer than themselves
- They feel confident of their capabilities and do not want to be stigmatised as 'old and frail'
- Some people who have fallen do not believe they will fall again because they attribute falling to momentary inattention or illness rather than persistent vulnerability
- Although some may accept they are at risk of falling, they believe nothing can be done because it is an 'inevitable part of ageing'
- Others accept they are at risk but feel the downsides of preventive measures outweigh the benefits.

Rather than focusing on the risk of falls, it is better to talk to an older person about the benefits of improving strength and balance, staying active, and maintaining mobility and independence.[2]

Targeting people according to their age, risk of falling or fear of falling is unlikely to be effective and advice given in an overly didactic tone is unlikely to be well received. People are more likely to make use of information and opportunities if they can choose the advice and activities that will suit their abilities, needs, priorities and lifestyle.[14]

Specialist services

Locally commissioned services can be build on the basic MUR. For example, a specialist community pharmacy service was developed in Doncaster where there was no multidisciplinary falls service and no clear pathways in place for healthcare professionals to refer 'at risk' patients for help with falls prevention.[15]

The community pharmacy service aimed to prevent falls and fractures by identifying those patients at risk of a fall and those who have fallen in the past 12 months.

The Doncaster falls and fracture prevention MUR service was developed to identify patients at risk of falls/fractures and, at the same time, improve the quality of MURs provided. The service included a standard MUR with additional falls and osteoporosis risk assessment and prevention elements. It targeted the following:

- Those aged 65 years and over taking three or more medicines
- Patients prescribed 'high-risk' (fall-inducing) medicines
- Patients on osteoporosis therapy
- Patients on corticosteroids or other medication known to reduce bone mineral density.

Patients were invited for a consultation with a pharmacist who had undertaken falls prevention training. The pharmacist asked about falls history, identified high-risk medicines that might contribute to falls, assessed gait and balance using the 'Turn 180° test', and asked about vision or continence problems, and smoking and alcohol consumption.

Patients were given oral and written advice about falls and fracture prevention. Patients who had fallen in the past year were referred directly to a specialist clinic and the patient's GP notified about risk factors and any problems with adherence to osteoporosis therapy.

Resources

- fitasafiddle.org.uk: a nationwide programme of regional and national projects supporting people aged over 50 years by encouraging physical activity, healthy eating and mental well-being
- DVDs and flip charts are available to buy from www.ageuk.org.uk
- PRevention Of FAlls NEtwork Earth (PROFANE) provides news, articles and support for falls prevention professionals
- NHS choices. Physical activity guidelines for adults: nhs.uk/Livewell/fitness/Pages/physical-activity-guidelines-for-adults.aspx#sets
- Age UK. Strength and balance exercises for healthy ageing: ageuk.org.uk/Documents/EN-GB/strength_and _balance_training_PDF.pdf?dtrk=true
- The National Osteoporosis Society: nos.org.uk

References

1. Age UK. Stop falling, start saving lives and money: ageuk.org.uk/Documents/EN-GB/Falls/Stop_falling_report_web.pdf?dtrk=true.
2. Department of Health, 2009. Falls and fractures: effective interventions in health and social care: laterlifetraining.co.uk/wp-content/uploads/2011/12/FF_Effective-Interventions-in-health-and-social-care.pdf.
3. Park H *et al.* Medications associated with falls in older people: systematic review of publications from a recent 5-year period. *Eur J Clin Pharmacol* 2015; 71: 1429-40
4. Campbell AJ *et al.* Psychotropic medication withdrawal and a home-based exercise program to prevent falls: a randomized, controlled trial. *J Am Geriatrics Soc* 1999; 47: 850-3
5. NICE. Osteoporosis: assessing the risk of fragility fractures. CG 146, August 2012
6. NHS Clinical Knowledge Scenarios. Osteoporosis: prevention of fragility fractures: http://cks.nice.org.uk/osteoporosis-prevention-of-fragility-fractures#!scenario:1.
7. Lifestyle advice for fracture prevention. *DTB* 2002; 40: 83-6
8. Gillespie LD *et al.* Interventions for preventing falls in older people living in the community. Cochrane Library 2012. DOI: 10.1002/14651858.CD007146.pub3.
9. NICE. Falls in older people: assessing risk and prevention. CG161, June 2013: nice.org.uk/guidance/cg161?unlid=823323482016813145559.
10. NHS Choices. Physical activity guidelines for adults: nhs.uk/Livewell/fitness/pages/physical-activity-guidelines-for-adults.aspx.
11. Age UK. Falls prevention exercise: follow the evidence: ageuk.org.uk/Documents/EN-GB/For-professionals/Research/Falls_Prevention_Guide_2013.pdf?dtrk=true.
12. Department of Health. National service framework for older people. March 2001
13. Pit SW *et al.* A quality use of medicines program for general practitioners and older people: a cluster randomised controlled trial. *Med J Aust.* 2007; 187: 23-30
14. Age UK. Don't mention the F word: ageuk.org.uk/Documents/EN-GB/For-professionals/Health-and-wellbeing/Falls_prevention_Dont_Mention_the_F-Word_2012.pdf
15. Thomas C. Evaluation of a community pharmacy falls prevention service. A report for NHS Doncaster Clinical Commissioning Group (CCG). May 2014: psnc.org.uk/doncaster-lpc/wp-content/uploads/sites/51/2014/02/NHS-Doncaster-Community-Pharmacy-Falls-Prevention-Service-Evaluation-FINAL-Report.docx.

FALLS PREVENTION & OSTEOPOROSIS

assessment questions

1. How many people over the age of 65 fall each year?
a. One in 10
b. One in five
c. One in two
d. One in three

2. What percentage of people become totally dependent following a hip fracture?
a. 10 per cent
b. 20 per cent
c. 30 per cent
d. 50 per cent

3. Which of the following is a risk factor for osteoporosis?
a. Current use of inhaled corticosteroids
b. Smoking
c. Family history of falls
d. A high consumption of coffee

4. The recommended minimum daily intake of calcium is:
a. 500mg
b. 600mg
c. 700mg
d. 1,000mg

5. What is the usual recommended dose for vitamin D supplementation for older people who are housebound or living in a nursing home?
a. 800iu
b. 400iu
c. 600iu
d. 1,000iu

6. How much time does a person need to spend in the sun per day (during April to October) to obtain sufficient vitamin D?
a. Two hours
b. Five to 10 minutes
c. 15-20 minutes
d. One hour

7. What is the first-line treatment recommended by NICE for the primary prevention of osteoporosis in postmenopausal women?
a. Calcium and vitamin D
b. Strontium ranelate
c. A bisphosphonate
d. Oestrogen supplementation

8. Find the TRUE statement. NICE recommends risedronate is taken:
a. 2.5mg once daily or 17.5mg once weekly
b. 5mg once daily or 35mg once weekly
c. 7.5mg once daily
d. 10mg once daily or 70mg once weekly

pharmacy KnowledgeBase

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CPD record

Pharmacy Magazine CPD November 2016

Use this form to record your learning and action points from this module on Falls prevention and osteoporosis or record on your personal learning log at pharmacymagazine.co.uk. You must be registered on the site to do this. Any training, learning or development activities that you undertake for CPD can also be recorded as evidence as part of your RPS Faculty practice-based portfolio when preparing for Faculty membership. So start your RPS Faculty journey today by accessing the portfolio and tools at rpharms.com/faculty.

Activity completed. (Describe what you did to increase your learning. Be specific)
(ACT)

Date: Time taken to complete activity:

What did I learn that was new in terms of developing my skills, knowledge and behaviours? Have my learning objectives been met?*
(EVALUATE)

How have I put this into practice? (Give an example of how you applied your learning). Why did it benefit my practice? (How did your learning affect outcomes?)
(EVALUATE)

Do I need to learn anything else in this area? (List your learning action points. How do you intend to meet these action points?)
(REFLECT & PLAN)

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*** If as a result of completing your evaluation you have identified another new learning objective, start a new cycle. This will enable you to start at Reflect and then go on to Plan, Act and Evaluate. This form can be photocopied to avoid having to cut this page out of the module. You can also complete the module at pharmacymagazine.co.uk and record on your personal learning log**