HSE Mid West
Community Healthcare

Falls Reduction Workbook for clinicians:

Identifying the Modifiable Risks with Multifactorial Falls Screening.

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Multifactorial Falls Screening (MFS)

Multifactorial falls assessment is an evidence based approach recommended by NICE (2017)It is used extensively across the UK. Interventions directed to modifiable risk factors can reduce the incidence of falls. Multifactorial falls screening (MFS) allows the identification of factors that predispose someone to a fall and is used to direct the individual to the appropriate assessment.

Whose responsibility is it to complete a Multifactorial Falls Screening (MFS)?

All staff working with older people should develop and maintain a basic professional competence in falls assessment and prevention (NICE, 2017). Individuals completing a MFS have a responsibility to action a plan to address the risks identified. This may include onward referral to the appropriate disciplines.

Where will this information be kept?

The discipline who completes the MFS keeps as the original in clients chart and forwards copy of MFS with onward referral to appropriate disciplines.

Definition of a Fall

A fall is 'an event which results in a person coming to rest inadvertently on the ground or floor or other lower level' (World Health Organisation). Injurious falls, including over 70,000 hip fractures annually, are the leading cause of accident-related mortality in older people (National Audit, 2010). Often only the trauma of a hip fracture ensures that an individual and their carers enter the chain of professional care. By then it may be too late (DOH, 2009).

Do not wait until a fall occurs — take preventative action Risks are modifiable

What Causes a Fall?

There are many factors that can cause falls. These risks are categorised intrinsic (occur within the body) or extrinsic (outside the body). It is the combination and the number of risks which increases risk of falling. Behaviours can also increase risk. Some of the risk factors associated with a fall cannot be modified. However, many of them can be modified or changed to reduce the risk of falls. There are only two non modifiable risk factors on the list- **age and history of falls.**

Intrinsic Risks:

- History of falls /Fear of falling
- Muscle weakness and poor balance
- Unsafe walking / transfers
- Poor Nutrition and Diet.
- Osteoporosis
- Medication
- Alcohol misuse
- Problem with vision / eyesight
- Problem with feet / footwear
- Cognitive impairment/ low mood.
- Continence
- Age
- Neuropathy
- Peripheral Vascular Disease
- Cardiac Problems

Extrinsic factors:

- Badly fitting footwear / clothing
- Uneven or slippery surfaces
- Loose mats or rugs
- Inadequate light — especially on stairs
- Poor stairway design and repair
- Lack of safety rails
- Inappropriate height of chair, bed, toilet etc.
- Trailing flexes and cables
- Unfamiliar environment
- Cluttered environment

Behavioural Risks:

- Getting up in the middle of the night in the dark
- Rushing to answer the phone or door
- Standing to put on lower garments
- Over stretching & over reaching
- Poor safety awareness

1. Falls History and Fear of Falling.

Fear of falling is a lasting concern about falling that may cause a person to stop doing activities s/he remains able to do (Tinetti & Powell, 1993). It is common in older people. It is characterised by a loss of confidence and voluntary restriction of activity and results in negative thinking and reduces self-esteem. Functional capacity may be reduced to a point where independent living may become too demanding. It can stop a person from doing some of their favorite activities that are important to their mental and physical health. If a person reduces their social activities they may feel alone and this can result in depression or anxiety. The psychological consequences of a fall should not be underestimated. Addressing modifiable risk factors will have a positive effect in reducing an individuals' fear of falling'. Question 3 in the level 1 conversation is asking the person about an irrational fear of falling that impedes their mobility and function, respecting their consent for further assessment/MFS.

What is my role in modifying 'fear of falling?'

Everyone working with older people has a role to play in identifying those who are at risk of falling and/or are worried about falling. Completion of the MFS will help to identify modifiable risk factors. The MFS action plan is bespoke for each individual and it is critical to ensure appropriate actions are taken to help reduce risks. Addressing modifiable risks will make an individual safer and will reduce anxiety and fear.

2. Muscle Weakness & Poor Balance

Strength & balance exercise is one of the most effective ways to reduce falls.

A young fit person can normally recover from a slip or trip. As people age muscle strength, balance and coordination decrease as a normal part of ageing. Disuse and an inactive lifestyle are major contributory factors. Physical activity and exercise will help an older person to maintain their strength, walking, balance and flexibility. This will help them to remain independent and enable them to perform household, personal and social tasks. There is a strong evidence base that balance and strength exercise along with home safety interventions effectively reduce falls (Cochrane review, 2012). Exercise must include balance and strength training and has to be specific to the individual. It can be delivered at home or in a group setting. Strength and balance exercises are suitable for some of the frailest of individuals. Even those in their 90s can improve their strength and balance to help avoid falls.

What is my role in modifying 'muscle weakness & loss of balance?

If you identify an individual with a balance and strength deficit your plan should include a referral to the physiotherapy service for exercise prescription. The Physiotherapist may prescribe an individual programme of exercise or refer the person to a class. This will vary between localities. Encouraging people to do as much as they can for themselves helps them to stay active and strong. If an older person is active and independent they may wish to attend local exercise groups (e.g local gym, groups organised by Sports Partnership or active retirement groups). It is therefore beneficial if you are aware of what facilities/exercise groups exist locally.

3. Transfers & Daily Activities

Coordination, sensory awareness, balance, strength and endurance are components in safe transfers and walking. Many older people are impaired in at least one of these components. This can affect their ability in activities of daily living and can reduce their independence. Walking even a short distance, as part of a daily routine, helps maintain mobility, strength and function. Moving correctly and transferring safely helps to maximise independence. Allowing someone to do things for themselves may take a little longer but it can help them to regain independence.

What is my role in modifying 'unsafe transfers and activities of daily living?'

Completion of an MFS may raise concerns about an individual's ability to transfer and mobilise. They may require a referral to Physiotherapy for a walking aid assessment or to OT for assessment for alternate ways to carry out activities of daily living and provision of necessary equipment. The OT can work with the individual/family/carer to analyse how the activity is set up, sequenced and actioned. If you are working as lead professional for a patient you may have a role in advising carers (informal and formal) about the correct moving and handling of an individual. Ensure the moving and handling documentation in the care plan gives an adequate description of what the individual needs. This is an important part of the enablement process. Encourage independence and mobility where possible. Correct moving and handling helps to keep an individual as independent as they can be. Some individuals can regain independence if encouraged appropriately.

4. Nutrition

Poor nutrition can affect anyone but is particularly common in older people and those who are socially isolated. Poor mobility, frailty or mental health problems are also contributory factors. Older people may develop swallowing difficulties or dental problems and this requires investigation. Grief, anxiety and depression can lead to a loss of appetite and subsequent malnutrition. Dehydration has been identified as one of the risk factors for falls in older people, since it can lead to a deterioration in mental state, and increase the risk of dizziness and fainting. The maintenance of adequate levels of hydration in older people can help prevent falls.

What is my role in modifying poor Nutrition and Diet

Completion of the MFS may raise concerns re diet and nutrition. Encourage a high protein/high calorie diet and provide resources Follow the HSE Nutrition Support Pathway which includes resources like 'making the most of every bite diet sheet' and cookbook. Malnutrition Screening (the MUST is used in HSE Mid West Community Healthcare area) and referral onwards to a dietician if the MUST is 2+.

Consider referral onwards to GP, Speech Therapist and/or Home help.

Resources for healthcare professionals and families & carers at https://www.hse.ie/eng/services/list/2/primarycare/community-funded-schemes/nutrition-supports/

5. Osteoporosis

The health of your bones makes a big difference to the effects of a fall. Osteoporosis is present in 90% of hip fractures. Fifty percent of people over 80 years of age have osteoporosis. After the age of 35 bone loss begins to occur very gradually. The cells responsible for breaking down bone (osteoclasts) begin to work more quickly than the cells responsible for building bone (osteoblasts). The result is age related bone loss and if this loss becomes severe, osteoporosis can develop. Osteoporosis causes the bones to become porous and fragile, with a higher risk of fracture. It is often referred to as the silent disease, as sometimes no symptoms are present until a bone is broken. Spinal fractures can be painless, and osteoporosis may still go undetected until late stage complications are present e.g. kyphosis. Osteoporosis should not be viewed as an inevitable part of the ageing process, but as a preventable illness of the older adult skeleton. All health professionals should be aware of risk factors for osteoporosis and should be able to identify those at risk.

What is my role in 'Osteoporosis'?

The completion of an MFS should highlight any issues regarding osteoporosis diagnosis and medications. If you are concerned about a patient being at risk of having osteoporosis refer them to their GP.

Are older people in your care getting enough Calcium?

Calcium is essential for the formation and maintenance of strong healthy bones and teeth. It is recommended that the calcium intake for adults is 700mgs per day to prevent osteoporosis. Larger supplement doses may be prescribed for patients who are diagnosed as already having osteoporosis. The best and easiest source of calcium for the body to absorb is found in dairy products **(National Osteoporosis Society leaflets— Healthy Living for Strong Bones).**

Are older people in your care getting enough Vitamin D?

Vitamin D allows the body to absorb the calcium from our diet. Supplementing levels of vitamin D can improve neuromuscular function, reaction and strength in those who are Vitamin D deficient. Most people get enough vitamin D from sunlight but if someone is rarely in the sun or they are housebound they may need a supplement. UK Health Departments recommend that before applying sunscreen, people should expose their face, hands and arms for 10 to 15 minutes each day. This should take place between the hours of 10am and 3pm. Doing this during the summer months of April to September will make enough vitamin D for the year. Care must be taken not to burn. The UK Health Departments also recommend that those over the age of 65 take a daily supplement of Vitamin D. Advice on purchasing a suitable supplement can be obtained from community pharmacists as supplements are not suitable for everyone. Certain foods contain Vitamin D. These include oily fish (herring, sardines, mackerel, salmon, tuna), egg yolks and certain margarines, breads and cereals that have been fortified with vitamin D. Calcium and vitamin D (Adcal- D3) should be prescribed as monotherapy for the prevention of fractures in ambulant females over the age of 65 who are housebound or in a nursing home.

Osteoperosis Medications

The treatment for osteoporosis depends on a number of factors including your age, sex, medical history and which bones you have broken. Osteoporosis drug treatments aim to strengthen existing bone, to help prevent further bone loss and, most importantly, reduce the risk of broken bones by 50%. Most drugs work by slowing down the activity of the osteoclast cells that break down old bone. These are anti resorptive drugs and are known as bisphosphonates. Bisphosphonates must be taken at least 30 minutes before the first food or drink (other than plain tap water) of the day. These instructions are important because bisphosphonates will only be effective if taken on an empty stomach. Tablets must be swallowed whole and taken with a glass of plain water. It is necessary to stay upright (sitting, standing or walking) for at least 30 minutes after taking the tablet. Other medications should not be taken at the same time of day as bisphosphonates. Avoid taking Calcium and Vitamin D (Adcal D3) within 4 hours of a bisphosphonate. Possible side effects of not following the instructions include inflamed oesophagus, sore throat and swallowing difficulties. Chest pain or worsening heartburn requires a review by the GP. If an individual is intolerant to bisphosphonates they may be prescribed Denosumab which is delivered by subcutaneous injection

6. Medication

Some medications *are a risk factor for falls.* Individuals on six or more medicines, prescribed or bought, are at greater risk of having a fall. Medicines can contribute to falls by a variety of mechanisms. Effects caused can include disturbed balance, drowsiness, dizziness, hypotension, blurred vision, confusion. Regular medication reviews are essential.

Postural Hypotension

Postural hypotension is a drop in someone's blood pressure when they assume an upright position. This can occur when going from lying to sitting or from sitting to standing. Medications are often implicated in postural hypotension. The symptoms of postural hypotension include:

- Dizziness
- Faintness
- Light-headedness
- Weakness
- Changes in vision such as blurring or blackening vision
- Losing consciousness with or without warning i.e. black out, faint, syncope

What is my role in modifying medications / postural hypotension?

The completion of an MFS will identify if an individual is experiencing symptoms that could increase their risk of falls. These symptoms may be due to their medications. This may be the first time an individual considers that these side effects may be responsible for previous falls or fear of falling. If an individual reports side effects arrange a medication review. Sometimes dizziness is not treatable. Encourage these individuals to take their time getting up, move slowly and in stages. When rising from a lying position, sitting on the side of the bed for a few minutes before standing up can be helpful. Similarly when standing up from sitting, stand for a few minutes before walking.

7. Alcohol

What is my role in modifying alcohol consumption?

The MFS should ask if an individual feels that alcohol has contributed to a previous fall.

Advise clients to:

- Read the labels of medications they are taking
- Observe the recommended limits
- Use soft drink spacers
- Eat when drinking
- Check the strength
- Have alcohol free days
- Avoid binge drinking

8. Eyesight

Eyesight and hearing play a vital role in maintaining balance and during movement. Older people with sight problems, including wearing the wrong prescription glasses or dirty glasses, are more likely to fall. Glasses with bifocal and varifocal lenses make objects and surfaces seem closer than they are and can cause falls. This can be especially problematic when on the stairs. Many older people blame changes to their eyesight on ageing, but only an eye examination can separate a serious visual impairment from 'normal' ageing changes. In addition to age related vision loss, there are four main eye conditions that are associated with the elderly:

- Macular Degeneration
- Cataracts
- Glaucoma
- Diabetic Retinopathy

It has been shown recently that surgery to remove cataracts can significantly reduce the risk of falls and fractures in elderly women. It is recommended that everyone has their eyes checked every 2 years. Any person with a medical card is entitled to a eye test/glasses every 2years. If you are over 75, a diabetic, have macular degeneration or cataracts a yearly check is recommended.

What is my role in modifying 'eyesight problems?'

The MFS will identify appropriate actions for individuals with eyesight problems. Encourage individuals to only wear their prescribed glasses. Advise to have regular eyesight tests. Ask if clients with glaucoma or diabetes are taking their medication or inserting eye drops correctly. Referral to GP or Optician with onward referral to Opthomologist as appropriate.

The environment can further impact on a person's visual ability. Use of colour and contrast and de-cluttering the environment can optimise a person's ability to attend to daily living tasks. The OT can provide advice to client/family/carer re same.

9.Foot Problems & Footwear

Age related changes in the feet and ankles can affect mobility. Reduced strength of the muscles around the ankles can result in difficulties clearing the ground when walking. Having a stiff ankle joint causes postural instability during gait making it difficult to negotiate rough terrain. Shock absorption is decreased. In addition, somatosensory changes to light touch, pressure, vibration and proprioreceptive changes may occur as a result of neurological conditions such as peripheral neuropathy or stroke. This also makes it difficult to adjust to changes in the terrain and in knowing where the foot is placed. Diabetes can affect the blood supply (Peripheral Vascular Disease/PVD) and nerve endings over time. PVD can contribute to a reduced blood flow in the legs which can cause cramping and increased pain. The Podiatrist will deliver general foot care and screen patients with diabetes and categorise them according to risk. This is categorised as low, moderate, high and active foot disease.

Specific ankle exercises can help improve strength and increase range of motion and help with balance. Suitable footwear that is properly designed and fitted will protect and support the foot.

This is important for maintaining independent mobility and preventing falls.

What is my role in modifying 'poor footwear?'

Refer to the Podiatrist (a specialist foot professional in the medical care of the foot- nail care, wound care, diabetes, biomechanics etc) and/or Physiotherapist (biomechanics, mobility, strengthening, balance and soft tissue)if the completion of the MFS indicates. Advise your clients about the following points:

- Soles should be flexible
- High heels & leather soles should be avoided
- Laces, buckles or Velcro straps hold the feet firmly in place, preventing them from slipping forwards
- Open backed slippers should be avoided
- Garments such as trousers / skirts / dressing gowns should not trail on the ground.

10. Cognition and Mood

Cognitive impairment can lead to a decrease in safety awareness and ability to function independently and safely at home. Alterations in mood can lead to inactivity and social withdrawal.

What is my role in falls prevention with individuals with dementia/mood alteration?

If you have completed an MFS and basic cognitive screen (all team members can complete a cognitive screen (mini mental test score / MMSE) and established an individual may have memory, mood or comprehension problems. They may require a referral to the GP to rule out any underlying cause and for potential onward referral to the relevant medical expertise. Referral to the OT can be initiated if medical screening is complete and if there appears to be significant impairment leading to decreased functional ability. OT can complete detailed cognitive screening and provide advice on memory strategies once medical reasons and diagnoses are clarified. OT can also do an in-depth assessment of the home environment and assess the clients' routines, habits and behaviours. OT can provide advice on home strategies for memory and adaptations for the home environment.

11. Continence

As we age it is normal for our bladder function to deteriorate. Acute and chronic illness can also alter our bladder function. It is normal to void 5-7 times a day. Needing to go more than 7 times a day or waking at night to go to the toilet more than once a night is considered frequent urination.

What is my role in modifying continence issues?

The MFS will identify appropriate actions for individuals with continence issues. Refer to the PHN, GP and/or Women's Health Physiotherapist if appropriate. If client gets up at night, use of commode beside bed and use of night light may be of benefit. Advising clients not to rush to the toilet and encourage use of prescribed incontinence aids.

12. Environment

When individuals are fit, most activities within the home can be completed with little effort or thought. Sometimes due to ill health, reduced mobility or cognitive issues normal activities may become more challenging. Small changes in the home environment can reduce the risk of falling.

What is my role in modifying 'environment'?

Completion of the MFS will highlight environment issues or challenges within an individual's home. Provision of advice on environmental safety can be given by all health care workers. Referral to OT for in-depth falls assessment of the environment and provision of aids and appliances may be appropriate

If the client needs a housing adaptation then refer directly to the council to apply for same (Many council's now employ OTs.)

Refer to local supplier of pendant alarms may be appropriate also.

13. Additional Information

Although this falls reduction workbook focuses on reducing falls it is important to consider the consequences of someone enduring a long lie. Personal alarms can support an individual to get help should they fall. Informing someone about the easiest way to get up off the floor after a fall can help reduce the fear of a long lie and give valuable tips that may allow an individual to get up off the floor independently. The Stay Strong Stay Steady Falls Reduction Booklet details the steps one can take to prevent a fall and planning around what one should do if a fall has occurred. If your client has type 2 Diabetes and they want more information on managing their diabetes; the community Dietitians run FREE self-management courses in Clare, Limerick and North Tipperary.

14. Referral to Primary Care Clinical Team Meeting

Primary Care Team Meetings take place in all Networks. Once a MFS has been completed for a client.

What is my role in referral to Primary Care Clinic Team Meeting?

Following completion of the MFS, consent is obtained from the client for discussion at the Primary Care Clinical Team Meeting. A Primary Care Referral Form is completed and a copy of the completed MFS attached and the client is referred to the appropriate MDT member/ members and to the Primary Care Clinical Team Meeting as appropriate.

References

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Useful Links/Contacts:

- Irish Longitudinal study on ageing TILDA https://tilda.tcd.ie/
- Health and Positive Ageing https://hapai.net/
- Irish Osteoporosis: Lo Call 1890 252751 or www.lrishosteoporosis.ie
- Alzheimer's Society of Ireland: Call 1800 341341 or visit www.alzheimers.ie
- Family Carers Ireland : Call 1800 250724 nor www.carersireland.com
- Go for Life team: Call 01 805 7733 or e-mail gfl@ageandopportunity.ie
- Sports Partnerships who provide Go for Life programmes www.limericksports.ie @ 061-333600, www.claresports.ie @ 065-6865434 www.tipperarysports.ie @ 0761-066201
- Weight loss and Malnutrition – resources

  https://www.hse.ie/eng/services/list/2/primarycare/community-funded-schemes/nutrition-supports/

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