1. Introduction

The objective of this practice guideline is to provide evidence-based recommendations that inform occupational therapists working with adults who have fallen, are at risk of falling or are fearful of falling of their role within the multifactorial assessment and intervention required to prevent and manage falls. The recommendations are intended to be used alongside the therapist's clinical expertise in their assessment of need and implementation of interventions. The occupational therapist is, therefore, ultimately responsible for the interpretation of the evidence-based guideline in the context of their specific circumstances and the needs of the people who access services.

It is intended that occupational therapists use this guideline to inform their work, with a particular focus on empowering people to fully engage and take responsibility for achieving individual goals. It should furthermore inform work with carers and people who support adults who have fallen or are at risk of falls. This may be particularly pertinent when the person has a cognitive impairment. The application of this guideline will also inform the commissioning and delivery of evidence-based services.

This resource provides a quick reference to the guideline recommendations, together with tables outlining the nature of the strength and quality grading categories of the recommendations. Extracts from the full guideline document on the background to the clinical condition and an overview of the occupational therapy role are also provided. Evidence-based recommendations are, however, not
intended to be taken in isolation and must be considered in conjunction with the contextual information and full guideline development methodology, described in the practice guideline document, together with current versions of professional practice documents, of which knowledge and adherence is assumed (RCOT 2020, p13).

Additionally, this resource provides tips for implementing the guideline’s recommendations, acting as an aid to occupational therapists wishing to incorporate the knowledge and evidence base contained in the guideline into their practice.

2. Background to clinical condition

Falls may occur at any age, but the combination of risk factors means that whilst falls are not an inevitable part of ageing, they are more likely to occur with increasing age. There has been a paucity of research on the impact of falls on younger people who are at risk of falls; however, the consequences of a fall can be as detrimental to them.

A key stage of any falls pathway for older people is to identify those who may be at risk of falling. Guidance within all four countries of the UK recommends that older people who are in contact with healthcare professionals should be asked about falls experienced in the previous year and, if relevant, the frequency, context and characteristics of those falls (DHSSPNI 2013, NICE 2013, Scottish Government 2014).

Over 400 risk factors associated with falling have been identified (NHS Centre for Reviews and Dissemination 1996), but these can be divided broadly into intrinsic (person-related), extrinsic (environment-related) and behavioural (activity-related) risk factors (Connell and Wolf 1997, Masud and Morris 2001, Stalenhoef et al 2002).

Although most falls do not result in serious injury, the negative outcomes of a fall are considerable and can include: ‘psychological problems (for example, a fear of falling and loss of confidence in being able to move about safely); loss of mobility, leading to social isolation and depression; increase in dependency and disability; hypothermia; pressure-related injury and infection’ (NICE 2013, p26). The costs of rehabilitation and social care are great, with up to 90% of older patients who fracture their neck of femur while hospitalised failing to recover their previous level of mobility or independence (Murray et al 2007).

The importance of a comprehensive multifactorial falls risk assessment to identify the factors pertinent for an individual must be emphasised. NICE recommends that older people should be offered such an assessment if they present for medical attention because of a fall, if they report recurrent falls in the past year, or if they demonstrate abnormalities of gait and/or balance (NICE 2013).

3. The occupational therapy role

The role of an occupational therapist in falls prevention and management is not exclusive to specialist falls services. Occupational therapy intervention with adults who have fallen, are at risk of falling or are fearful of falling occurs in a wide range of settings in health, social care, voluntary and independent sectors, including hospitals, people’s own homes, care homes, day centres and prisons.

New opportunities are also emerging across the whole system to support people during their transitions of care, a time when falls risk increases. Occupational therapists work within primary care settings where they can make an impact on prevention of hospital admissions for the individual. The person-centred and holistic philosophy of occupational therapy underpins the recommendations within this guideline. Occupational therapy provides practical support to empower people to facilitate recovery, build resilience and overcome barriers to preventing them from doing the occupations that matter to them. ‘Occupation’ refers to practical and meaningful activities that allow people to achieve
their wishes and meet their needs. Support from occupational therapy increases people’s independence and wellbeing in areas that are meaningful to individuals.

Occupational therapists consider the person, their environment and their occupation (Law et al 1996, Duncan 2011). These three domains have an alignment with the risk factor categories and interventions for falls: intrinsic (person), extrinsic (environment) and behavioural (occupation). Embracing the three means that occupational therapy falls prevention and management intervention optimise the potential to impact positively on an individual’s ability to carry out daily activities (occupational performance).

The occupational therapy role in falls prevention and management may include, but is not necessarily limited to, the key areas described in the sections below.

Falls risk identification and analysis
Occupational therapists work in a variety of settings with adults of all ages who may be at risk of or have had a fall, or are fearful of falling, and no matter the context should identify an individual’s risk factors for falls, including those factors that can and cannot be modified. Occupational therapists can use the analysis of data about falls to understand how these falls impact on the person, their environment, occupation and performance. As part of the risk identification it is important for occupational therapists to understand the need to take further action and when to seek expertise from an advanced practice falls occupational therapist or other members of the health and social care team.

Assessment and intervention
Occupational therapists contribute to a number of the elements of a multifactorial assessment, notably with respect to the ‘assessment of perceived functional ability and fear relating to falling’ and ‘assessment of home hazards’ (NICE 2013, p13). Assessment should also incorporate perspectives of the caregiver and family.

Interventions include positive risk taking in activity, optimising functional performance, improving self-confidence and social engagement. Environmental advice and modification to reduce home hazards, education and practice in safe moving and handling, with provision of equipment as required, are also appropriate. All interventions should promote independence, build resilience and improve personal safety. Reablement, where indicated, will involve working with support workers to resume activities of daily living and occupational roles. Occupational therapy intervention for falls may be in the context of condition management strategies.

A central tenet of occupational therapy practice is working with people to support self-management of their daily occupations. This can be achieved through building resilience and providing opportunities for people to manage their own health and wellbeing. Reducing sedentary behaviour and encouraging people to improve their activity levels should be embedded within all aspects of intervention.

Occupational therapists have a role both in terms of fracture prevention and in social and rehabilitative prescribing and signposting of strength and balance activities, but these should be evidence based to ensure the maximum benefit and falls risk reduction.

Contingency planning for the management of future falls that may occur should be explored. This may include advice and practice, where appropriate, on how to summon help and how to avoid the consequences of a ‘long lie’, or lying on the floor after a fall for a period of 60 minutes or more. Occupational therapists should help the person identify behaviours that may increase the risk of falls and assist with behaviour change to reduce those risks.
Falls prevention and management education

Occupational therapists play a key role in the education of people who are at risk of falls or who have had a fall. They also have a role in supporting carers, family and staff across a wide spectrum of agencies to prevent and manage falls. Education on falls prevention spans across a life journey and should encompass the transitions of care.

Technology-enabled care (technology such as a pendant alarm to summon assistance, or remote monitoring via items such as a falls detector) is an option which may be explored in the context of self-management. The evidence remains mixed with regard to technology-enabled care outcomes and cost effectiveness (Henderson et al 2013, Steventon et al 2013). Qualitative studies have identified that when tailored sensitively to the needs of the individual, technology-enabled care has the potential to increase confidence and reduce fear of falling (Horton 2008, Stewart and McKInnstry 2012). The use of technology is likely to be influenced by intrinsic factors associated with the individual’s attitude, choice, control, independence and perceived need for safety measures (Hawley-Hague et al 2014).

Outcome measures

The Royal College of Occupational Therapists promotes the use of evidence-based outcome measures to demonstrate the delivery of high-quality and effective occupational therapy services and to provide credible and reliable justification for the intervention that is delivered. Members can find more information on the RCOT website: https://www.rcot.co.uk/practice-resources/library-resources/assessments-and-outcome-measures.

Improving health and wellbeing

Improving health, wellbeing and independence, including reducing falls, is a public health priority (Department of Health and Public Health England 2014). It is important, therefore, to note that allied health professionals have a significant contribution to make in improving public health and wellbeing (Hindle 2014, Allied Health Professions Federation 2019). Public health guidance also identifies that occupational therapists have a valuable contribution in promoting mental wellbeing through physical activity interventions (NICE 2008). The public health guidance complements and supports the falls guideline (NICE 2013), and occupational therapists should therefore explore and support opportunities for the person to participate in appropriate physical activity. Occupational therapists should also take into account potential health inequalities and any social determinants of health which may be appropriate to the provision of services. In falls prevention and management, this can be addressed specifically through optimising individual capacity and control over life and strengthening the role and impact of ill health prevention (Marmot 2010, p15).

Multiagency working

The multifactorial nature of falls prevention and management strategies means that working as an effective team member is vital. It is recognised that as part of a multidisciplinary, multiagency team, there may be some key areas of assessment and intervention that overlap with the role of other health and social care personnel. Where an occupational therapist is unable to provide the required intervention, the person should be referred to an appropriate service to meet his or her needs (COT 2017, p14).

Occupational therapy staff must work alongside other professionals in accordance with local service arrangements to ensure the needs of the person are met. Good communication across the primary and secondary care interface, and between health, social care and the independent and voluntary sectors, is imperative.

Cost effectiveness of occupational therapy interventions

A recent campaign by RCOT (2019) highlighted the value of occupational therapy within falls prevention and management. In addition, Public Health England has recognised the cost effectiveness of home assessment and modification (PHE 2017). Opportunities exist through the NHS long-term plan (NHS 2019) for occupational therapists to intervene early in primary care, embed personalised care, expand therapy-led services and develop wider partnerships. All of these
opportunities fit within the context of occupational therapy in the prevention and management of falls. Therefore it is important that cost effectiveness is embedded within the delivery of occupational therapy. Return on investment tools (Public Health England 2018) exist to support occupational therapists to demonstrate the value of their interventions. In addition, occupational therapists must consider using evidence-based interventions as these will support a return on investment.

4. Guideline recommendations

The recommendations are based on the synthesis of the best available evidence. It should, therefore, be noted that the guideline is not able to be fully reflective of the role of occupational therapy in the prevention and management of falls.

The four recommendation categories reflect key aspects of occupational therapy in the prevention and management of falls in adults.

The studies from which the recommendations were developed are outlined in the full guideline in evidence tables (Appendix 7). Recommendations are graded A (high) to D (very low) to indicate the quality of the evidence, and the scoring of 1 (strong) or 2 (conditional) indicates the strength of the recommendation – see full guideline for further details of the grading method. Twenty-three per cent of the evidence was graded as high (A), 46% as moderate (B), 29% as low (C) and 2.0% as very low (D) quality. All 16 recommendations are graded as strong.

<table>
<thead>
<tr>
<th>Keeping safe at home: reducing risk of falls</th>
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<tbody>
<tr>
<td><strong>It is recommended that:</strong></td>
</tr>
<tr>
<td>1A.  Occupational therapists should carry out with people who have fallen or are at risk of falls an occupational therapist-led home hazard assessment, including intervention and follow-up, to optimise functional activity and safety.</td>
</tr>
<tr>
<td>[Statement amended and new evidence 2020]</td>
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<tr>
<td>1A.  Occupational therapists should carry out home safety assessment and modification for older people with a visual impairment.</td>
</tr>
<tr>
<td>[New evidence 2020]</td>
</tr>
<tr>
<td>1A.  Occupational therapists should carry out a pre-discharge home assessment to prevent readmission to hospital.</td>
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<tr>
<td>(Lockwood et al 2015 [A]; Johnston et al 2010 [C])</td>
</tr>
<tr>
<td>[New recommendation 2020]</td>
</tr>
<tr>
<td>1A.  Occupational therapists should carry out a post-discharge home assessment to reduce the risk of falls following discharge from an inpatient rehabilitation facility, taking into account the person’s falls risk, functional ability and diagnosis.</td>
</tr>
<tr>
<td>(Chu et al 2017 [A]; Di Monaco et al 2012 [B]; Di Monaco et al 2008 [B])</td>
</tr>
<tr>
<td>[Statement amended and new evidence 2020]</td>
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</table>
5. Occupational therapists should provide people living in the community advice, instruction and information on assistive devices as part of a home hazard assessment.

(Chu et al 2017 [A]; Jensen and Padilla 2017 [B]; Steultjens et al 2004 [B])

**Evidence overview**
The evidence for the effectiveness of the occupational therapist in home hazard assessments and interventions for people considered at high risk of falls (history of falling in past year, hospitalisation for a fall, severe visual impairment or functional decline) is both high quality and strong (RCOT 2020, p19).

<table>
<thead>
<tr>
<th>Keeping active: reducing fear of falling</th>
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<td><strong>It is recommended that:</strong></td>
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<tr>
<td>6. Occupational therapists should explore with the person whether fear of falling may be restricting activity, both in and outside the home, and include the promotion of occupational activity within individualised intervention plans.</td>
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<table>
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<tr>
<th>Evidence overview</th>
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<tr>
<td>The evidence on fear of falling highlights the integral link between fear and activity levels. Although reducing the number of falls may be a key outcome for falls prevention activities, there is the potential to restrict activity as a behavioural response to engagement. People have different attitudes and levels of tolerance to risk. The occupational therapist therefore has a valuable role in working with person, caregivers, family and friends to achieve a balance of risk and activity (RCOT 2020, p28).</td>
</tr>
</tbody>
</table>

7. Occupational therapists should listen to an individual’s subjective views about their falls risk, alongside using objective functionally-based outcomes to determine the influence of fear of falling on the person’s daily life.

(Schepens et al 2012 [B]; Wijlhuizen et al 2007 [C])

8. Occupational therapists should seek ways of enabling the person to minimize the risk of falling when performing chosen activities, wherever possible, as this may improve confidence and enable realistic risk taking.

(Wijlhuizen et al 2007 [C]; Zijlstra et al 2007 [B])

9. Occupational therapists should facilitate caregivers, family and friends to adopt a positive approach to risk.

(Boltz et al 2014 [C])
<table>
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<tr>
<th>Falls management: making it meaningful</th>
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<td><strong>It is recommended that:</strong></td>
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</table>
| 10. Occupational therapists should share knowledge and understanding of falls prevention and management strategies with the person. This should provide personally relevant information and take account of the person's individual fall risk factors, lifestyle and preferences.  
  (Stenhagen et al 2014 [C]; Groot and Fagerström 2011 [C]; Stern and Jayasekara 2009 [B]; Ballinger and Clemson 2006 [C]; Haines et al 2006 [C]; Haines et al 2004 [B])  
  [New evidence 2020] |
| 11. Occupational therapists should take into account the person’s perceptions and beliefs regarding their ability, and personal motivation, which may influence participation in falls intervention.  
  (Taylor et al 2017 [B]; Jang et al 2016 [B]; Harvey et al 2014 [C]; Gopaul and Connelly 2012 [D]; Groot and Fagerström 2011 [C]; Nyman 2011 [C])  
  [New evidence 2020] |
| 12. Occupational therapists should optimise the extent to which the person feels in control of the falls intervention.  
  (Taylor et al 2017 [B]; Currin et al 2012 [C]; Wilkins et al 2003 [C])  
  [Statement amended and new evidence 2020] |
| 13. Occupational therapists should support the engagement of the person in identifying the positive benefits of falls intervention.  
  (Hill et al 2013 [B]; Nyman 2011 [C]; Ballinger and Clemson 2006 [C])  
  [New evidence 2020] |
| 14. Occupational therapists should ensure falls prevention and management information are available in different formats and languages to empower and engage all populations (e.g. web-based support, written information leaflets).  
  (Harper et al 2017 [C]; Mahoney et al 2017 [C]; Hill et al 2013 [B]; Nyman et al 2011 [C]; Hill et al 2009 [B])  
  [Statement amended and new evidence 2020] |
| 15. Occupational therapists should encourage and support physical and social activity, as a means of reducing the person’s risk of falls and their adverse consequences, through the use of activities meaningful to the individual.  
  (Rosendahl et al 2008 [B])  
  [Statement amended 2020] |
| 16. Occupational therapists should deliver targeted strength and balance training that is incorporated into daily activities and occupations that are meaningful to the person, to improve and encourage longer-term participation in falls prevention interventions.  
  (Pritchard et al 2013 [B]; Clemson et al 2012 [A]; Clemson et al 2010 [B])  
  [Statement amended 2020] |
Evidence overview

Occupational therapists should optimise the engagement of the person in falls management interventions, taking into consideration the person’s motivation, beliefs and knowledge.

A key message to be incorporated into falls prevention and management interventions is a focus on the potential benefits to the individual of interventions to improve mobility, independence and active participation, as distinct to the language used within the professional arena of ‘reducing the incidence of falls’ or ‘decreasing the risk of falls’. People should be made aware of the potential implications of falling, but occupational therapists should highlight the positive outcomes rather than the negative connotations associated with falls.

Meaningful activity can be integrally linked with motivation. Physical activity which can be incorporated into daily lifestyles is more likely to be sustainable; there is a key role here for occupational therapists given this functional approach. The value of such an occupational and activity-based approach is supported by the high-quality research by Clemson and colleagues. Although the primary research for the LiFE approach was undertaken in Australia (Clemson et al 2012, Clemson et al 2010), potentially it is easily translatable to the United Kingdom (RCOT 2020, p34).

Occupational therapy intervention: impact and cost effectiveness

It is recommended that:

17. Occupational therapists should use interventions that have been shown to be cost-effective and have impact.


Evidence overview

Occupational therapists’ interventions can have a significant impact, both in terms of outcomes and, as this evidence shows, cost effectiveness. The evidence detailed in the full guideline, most of it high quality, provides a base for understanding where occupational therapists can increase the cost effectiveness and impact of healthcare.

It is recommended that occupational therapists participate in national and local audit of falls prevention services, and use the tool which is available to support this guideline to undertake audit against the above recommendations.

Information about organisational and financial barriers that may impact on an occupational therapist’s ability to implement the recommendations are outlined in the full guideline (RCOT 2020, pp47-51)

5. Guideline implementation

In addition to the full guideline document, there are a number of implementation resources available to aid translation into practice, including a CPD resource and an audit tool. Some key tips to consider are outlined in the table below.

Key tips

1. Use the evidence available to inform prioritisation where there are service capacity issues which might make translation into practice more challenging.
2. Seek access to strength and balance training and/or work jointly with physiotherapy colleagues.

3. Incorporate fear of falling as a core element of assessment.

4. Be familiar with the full range of local services to expedite onward referral for further assessment, intervention or services.

5. Look for opportunities to promote the practice guideline with colleagues and multidisciplinary team members: include on the agenda of relevant meetings.

6. Present and discuss the evidence-based recommendations with colleagues – preferably with the multidisciplinary team. A Continuing Professional Development PowerPoint is available with information already prepared and can be tailored for your local use.

7. Use the guideline audit tool to benchmark your service/practice and assist in identifying actions to progress implementation of recommendations. An audit tool is available to download and audit your service against the recommendations and kick-start an action plan.

8. Gather evidence of outcomes using standardised assessments and measures.

9. Use the guideline evidence and recommendations to support the case for occupational therapy as part of your business planning and commissioning activities.

10. Write an implementation case study to demonstrate how your service has translated the guideline recommendations into the workplace. Provide supporting performance/outcome data and feedback from those who accessed the services to demonstrate the difference you are making to them, the quality of services and cost-effectiveness.

The Royal College of Occupational Therapists and the Specialist Section would welcome your feedback on the guideline document and how you are using it in your practice/service. Please email RCOT Research and Development Officer Angie Thompson: angie.thompson@rcot.co.uk.

To access the implementation tools visit: https://www.rcot.co.uk/practice-resources/rcot-practice-guidelines

6. References

The full reference list for the evidence supporting the recommendations, together with the full evidence tables, can be found in the guideline.


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Royal College of Occupational Therapists (2020) Occupational therapy in the prevention and management of falls in adults. London: COT. Available at: https://www.rcot.co.uk/practice-resources/rcot-practice-guidelines


All websites were accessed on 16.07.2019 unless otherwise stated.