

## **Thinking Falls- Taking Action: development of a Guide to Action for Falls Prevention**

### **Tool (GtA)**

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## Abstract

Clinical guidelines and research papers help clinicians measure and understand the risk of falling in their older clients but very few provide the assessor with recommendations as to which interventions they can use to reduce the risk of a fall.

The Guide to Action for Falls Prevention tool (GtA) was developed to help professionals from a broad range of organisations to recognise factors that might increase falls risk and know which actions to take to lessen that risk.

Twenty four professionals tested the GtA in a clinical setting and found it quick (15 mins) and easy to complete. The GtA needs further evaluation to test whether it is a practical way of delivering a falls prevention intervention.

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Falls, older people, risk factors, checklist, implementation

**Key Points:**

- Falls in older people are due to an interaction of multiple risk factors and events
- Identifying risk factors significant for an individual older person, and taking action to reduce or reverse those risk factors, can reduce falls
- Many opportunities to reduce falls are overlooked
- A quick and simple checklist of risk factors known to contribute to falls in older people, with suggested actions to take to reduce those factors, has been shown to be useable across health, social care and partner organisations

**Background**

Falls are a major cause of disability and mortality in people over 75 (Scuffham P, Chaplin S et al. 2003). They are a consequence of multiple and diverse risk factors, many of which can be prevented and corrected (National Institute for Health and Clinical Excellence 2004). Yet frequently older people are not aware of their risk of falling and opportunities to intervene to prevent falls are overlooked, with risk factors only becoming evident after an injury has occurred (American Geriatrics Society, British Geriatrics Society et al. 2010).

Multi-agency, multi-factorial interventions have been shown to be most effective in reducing the incidence of falls in older people (Gillespie LD, Robertson MC et al. 2009) and the provision of fall prevention interventions has been recommended by the National Institute for Health and Clinical Excellence (NICE) (National Institute for Health and Clinical Excellence 2004) and in the National Service Framework for Older People (Department of Health 2001). Although there is research evidence and clinical guidelines to help clinicians deliver the appropriate treatments, there are concerns that the time and energy has not been forthcoming to embed the evidence in clinical practice (Close 2005). This is made more challenging by clinicians not knowing who to target with the interventions.

Predictive risk assessment tools have been developed to try and address this problem, which grade a person's level of risk of falling (Oliver, Daly et al. 2004). The Falls Risk Assessment Tool (FRAT) (Nandy, Parsons et al. 2004) is one of the most widely used risk tools in the UK,

although there are concerns about the impact in clinical practice (Oliver 2008). Using a risk factor check list to identify an individual's risk factors for falling and then taking targeted action to reduce or reverse those risk factors is key (Oliver and Healey 2009).

The Rushcliffe Falls Prevention and Research Group is a multi-agency inter-professional forum working within South Nottinghamshire, UK that shares and disseminates good practice and develops initiatives to raise awareness of falls. There are 24 members including health care professionals, a carers support worker, representatives from social services, the fire service, the voluntary sector, University of Nottingham, the borough council, home alarm service, preventative adaptation service, housing agencies and a local forum of older people who act as service user representatives. One aim of the group was to develop a community-based risk factor checklist that could be used across various disciplines and clinical settings as a guide to implementing proven falls prevention techniques. This paper describes how this tool was developed.

### **Development of the Guide to Action for Falls Prevention Tool (GtA)**

Medline, Pubmed and Cinahl databases and the Department of Health and ProFanE websites were searched for evidence regarding risk factors significant to falling in older adults and interventions shown to reduce the rate of falls in the community. The falls research group appraised the research literature and clinical guidelines and listed the assessments and evidence-based interventions suitable for implementation in a primary care setting. The list was presented to a group of medical, pharmacy, nursing, social care, therapy and research professionals. An iterative process was used to agree which of the evidence based items should be included in the check list. A final two page document called the Guide to Action for Falls Prevention Tool (GtA) was produced (Figure 1). On the first page, 34 risk factors were presented as a table under the headings history, movement, environment and personal. Shaded boxes indicated areas where published research has shown these factors are significantly associated with a higher risk of falling. The second page (Figure 2) mirrored the first with recommended actions to be taken for each risk factor. An information pack with advice sheets was written to support the areas highlighted for action. For example if a client

reported that they were missing two meals a day on page 1, then on page 2 the suggested interventions would be: 'Provide advice re importance of healthy eating, encourage client to eat meals, review reasons for poor appetite, discuss with GP'. The advice sheet would advise the client or carer about the use of small meals, nutritious snacks, supplementary foods, easy menus and local meal delivery services, potentially reducing the need to refer on to more specialist services for those at less risk. The tool delivers immediate and targeted information to older people at risk of falls, as recommended by the NICE (2004) in the Falls Clinical Guidelines (National Institute for Health and Clinical Excellence 2004).

Figure 1: Guide to Action for Falls Prevention (GtA) page 1

HISTORY	✓	MOVEMENT	✓	ENVIRONMENT	✓	PERSONAL	✓
<b>History of Falls</b> 1+ falls in last year		<b>Balance</b> Holds furniture Loses balance on turning		<b>Access</b> Paths, steps, uneven surfaces		<b>Nutrition</b> Missing 1 meal per day Missing 2+ meals per day	
<b>Stumbles or trips</b> Any "near misses"		<b>Mobility</b> Stops walking when talking, shuffles, unsteady, uses walking aids incorrectly, poor condition of walking aid including worn ferrules		<b>Telephone</b> Unable to get to telephone easily, no upstairs extension		<b>Fluid</b> Drinks less than 5 cups of fluid per day	
<b>Previous Fracture</b> Wrist, hip, pelvis, vertebra			<b>Property in Disrepair</b> Effects health and safety				
<b>Fear of Falling</b> Confidence		<b>Transfers</b> Difficulty on/off chair, bed, toilet, bath		<b>Flooring</b> Rugs, clutter, flexes, surfaces, spillages		<b>Alcohol</b> 2+ units per day	
<b>Coping strategies</b> Inability to get up or summon help, no alarm in situ		<b>Exercise</b> Does not walk outside or carry out exercise programme		<b>Thresholds &amp; Doors</b> Tripping hazards between rooms and to outside eg uPVC frame, doors hard to open, answering door		<b>Vision</b> Has difficulty seeing across the room, wears bifocal glasses	
<b>Medication</b> Concern re medication or 4+ prescribed medications		<b>Reaching</b> Unable to reach cupboards, draw curtains		<b>Stairs</b> Clutter, carpet, tread, bends, 1 rail, used 2+ times per day		<b>Continence</b> Toilet difficult to access, frequency, urgency	
<b>Medical History</b> Stroke, Parkinson's Disease, Dizziness, Shortness of Breath, Blackouts, Palpitations, Arthritis		<b>Carrying</b> Unable to safely carry drinks, meals etc.		<b>Heating</b> Feels cold, heating control difficult, concerned re cost		<b>Footwear &amp; Clothing</b> Unsupportive or inappropriate footwear, painful feet, inappropriate clothes for environment	
<b>Mental State</b> Memory, mood, motivation, confusion		<b>Bending</b> Has difficulty picking up mail, dressing lower half, tries to stand to dress, sockets		<b>Lighting</b> Poor lighting day and/or night, unsafe changing bulbs, location of light switches		<b>Pets</b> Around feet when walking, unable to feed easily	
<b>Sleep</b> Sleeps badly at night, feels tired, change in sleep pattern, sleeps alot during day		<b>Pain</b> Has pain either specific or generalised		<b>Garden</b> Unsafe to access for bins, washing, maintenance		<b>Social Contact</b> Lives alone, few visitors, rarely goes out	

Figure 2: Guide to Action for Falls Prevention (GtA) page 2

<b>HISTORY</b>	<b>MOVEMENT</b>	<b>ENVIRONMENT</b>	<b>PERSONAL</b>
<b>History of Falls</b> <i>Review incidents, advise on prevention, refer to community Nurse for BP review, refer to OT and PT, inform GP</i>	<b>Balance</b> <i>Advise re stabilising before walking</i>  <i>Refer to Physiotherapist</i>	<b>Access</b> <i>Advise re hazards, refer to OT</i>  <b>Telephone</b> <i>Advise e.g. phone extension, cordless phone, ansaphone</i>	<b>Nutrition</b> <i>Advise re importance of healthy eating</i>  <i>Review reasons, offer alternatives e.g. Meals at Home, inform GP</i>
<b>Stumbles or trips</b> <i>Review incidents, advise on prevention, refer OT and PT</i>	<b>Mobility</b> <i>Refer to Physiotherapist, assist in completing exercise programme, advise re safe use of aid, replace walking aid or ferrules</i>	<b>Disrepair</b> <i>Advise Environmental Health at local Council</i>	<b>Fluid</b> <i>Advise re importance of adequate fluid for continence and health</i>
<b>Previous Fracture</b> <i>Consider osteoporosis / refer to GP</i>			
<b>Fear of Falling</b> <i>Refer OT and PT</i>	<b>Transfers</b> <i>Refer to OT and PT</i>	<b>Flooring</b> <i>Advise re rugs, surfaces</i>	<b>Alcohol</b> <i>Refer to GP if concerned / Advise re effects of alcohol</i>
<b>Coping strategies</b> <i>Refer OT and PT, Refer for Alert Alarm</i>	<b>Exercise</b> <i>Refer to Physiotherapist, assist in completing home based exercises</i>	<b>Thresholds &amp; Doors</b> <i>Advise re hazards, refer to OT</i>	<b>Vision</b> <i>Explain risks, advise against bi or varifocal glasses, advise sight test every 2 years</i>
<b>Medication</b> <i>Advise review with GP if reports any concerns re medication or on 4+ prescribed medications</i>	<b>Reaching</b> <i>Advise on lifestyle, give "Slips and Trips" leaflet, refer to OT</i>	<b>Stairs</b> <i>Advise, Refer to Physiotherapist / OT / Preventative Adaptation Scheme</i>	<b>Continence</b> <i>District Nurse re urgency / frequency; OT for access difficulties</i>
<b>Medical History</b> <i>Refer to GP if medical review required</i>	<b>Carrying</b> <i>Review equipment in home, advise safe practice, refer to OT</i>	<b>Heating</b> <i>Advise, refer to Healthy Housing / Affordable Warmth / Social Services</i>	<b>Footwear &amp; Clothing</b> <i>Advice on suitable footwear, check footcare, consider podiatry</i>
<b>Mental State</b> <i>Refer to GP if medical review required</i>	<b>Bending</b> <i>Advise safe practice, refer to OT</i>	<b>Lighting</b> <i>Advise, refer to Preventative Adaptation Scheme / Housing</i>	<b>Pets</b> <i>Advice</i>
<b>Sleep</b> <i>Refer to GP and / or general advice</i>	<b>Pain</b> <i>Refer to GP if medical review required</i>	<b>Garden</b> <i>Advise, Preventative Adaptation Scheme, Voluntary Sector or OT</i>	<b>Social Contact</b> <i>Advice / Social Services re Day Care Give Information re local Voluntary Groups</i>

**AGREED ACTION PLAN**

<b>DATE</b>	<b>ACTION</b>	<b>SIGNED</b>

The GtA tool and information pack were checked for clarity by the Nottinghamshire Older Person's Forum and the Plain English Group. To support implementation a training package was developed and delivered, attended by staff from a range of organizations concerned with the care and support of older people and who would use the GtA in everyday practice - including therapists, community nurses, social workers, supported housing staff, environmental health officers and care assistants. The package lasted three hours, was delivered by the falls clinical specialist using a small group format and included information about the importance of preventing falls and case-based discussion about its application. Follow-up support was provided in the form of telephone consultations with the trainer to discuss the first few GTA assessments undertaken.

## **Piloting the GtA Tool**

Members of the falls research group piloted the GtA tool in their respective workplaces for ease of use and face validity. They reported their experiences back to the group and found the tool easy to use, taking approximately 15 minutes to complete with each client and then an additional 15 minutes to discuss each action. The group felt that the tool's content was appropriate for their clients and that the suggested interventions were acceptable within their local environments. The GtA was then presented to local NHS organisations and ratified through Clinical Governance for use across South Nottinghamshire with a population of 660,000. Over a period of 12 months in 2006, 186 people from 12 different organisations undertook the training.

## **Audit of the GtA Tool**

At the end of 2006, the NHS Clinical Audit Service completed an audit of the GtA. The audit questionnaire was sent to nurses, therapists or managers of older people's services in health and social services, Rushcliffe Borough Council and Sheltered Housing complexes. Respondents were asked to complete the audit if they had day to day contact with older people as clients. A stamped addressed envelope was included for return of the anonymised replies.

The aims of the audit were:

- to establish whether the GtA was being used in practice
- to understand barriers to using the GtA

## **Results**

Seventy four percent (112/150) of participants returned questionnaires. The professions of respondents are summarised in Table 1.

Profession	Number (%) replies received n=112
Community Nursing (Matron, District Nurse, Staff Nurse, Healthcare assistants)	68 (60.7%)
Therapy (Physiotherapist, Occupational Therapist, Assistant Practitioner, Rehabilitation Support Worker)	25 (22.3%)
Practice Nurse	10 (8.9%)

Pharmacist	4 (3.6%)
Other (e.g. Dietician, Care Assistant)	5 (4.5%)

Table 1 Profession of participants

One hundred and six (95%) of the respondents were aware of the GtA tool. Eighty four (75%) were aware that GtA training was available, of whom 63/84 (75%) had attended the training. Reasons for non-attendance were lack of time and staff shortages. Although 71/112 (63%) people reported that they felt the GtA could be useful, only 62/112 (55%) had completed the assessment with an older person. Table 2 shows why people did not use the tool.

Reason	43 responders
Did not think about it	5 (11.6%)
Didn't have the GtA paper work with me at the time	15 (34.9%)
Confident in assessing falls without the GtA	5 (11.6%)
GtA already completed by another professional	11 (25.6%)
No response	7 (16.3%)

Table 2 Reasons for not using the GtA

Nine out of sixty two (14%) respondents reported using the tool with every older person, 11/62 (18%) used it with those in whom they were unsure of the reason for falling and 17 (27%) used it with clients deemed to be at risk of falling. Fifty four out of hundred and twelve (48%) respondents had used the information pack to accompany the tool.

## Discussion

We have described the development and piloting of a Guide to Action for Falls Prevention tool (GtA) which can be used by professionals from a broad range of disciplines and organisations. This provides prompts toward evidenced-based action to prevent falls for services which may not have access to any research articles or clinical guidelines. Oliver et al (2008) suggest that falls risk assessment tools can prompt good comprehensive geriatric assessment and care

planning, yet it is not clear that simply stratifying risk provides a clear prompt to action and that, when professionals do act, that they do so in line with best evidence. The GtA may potentially bridge this gap by connecting the falls risk assessment with evidence-based practice guidelines. It may also act as a resource for professionals not normally undertaking falls risk assessment, such as wardens in supported housing schemes and social care staff, and may also augment assessments completed by health care staff including community nurses.

The GtA was developed in collaboration with staff from a wide range of agencies and service users and accepted as useful by professionals across multiple disciplines and acceptable to older people. The audit results provide evidence that the tool is easy and quick to complete, is perceived as relevant to the population and suitable for use in a community setting. We were encouraged that a high proportion of respondents were aware of the GtA tool but were concerned that many did not have the paper work to hand to use the assessment and were not aware of the supporting information. This problem has been addressed through a change to the training programme which now uses case studies with which to practice completing the tool. In addition the tool is now included within the community nursing documentation. Since this work was completed the GtA has been included as a first line assessment within the Nottinghamshire Falls Guidelines for use across health and social care and will be included in an analysis of performance data by NHS commissioners in 2010. This process will allow us to continue to appraise the GtA.

There are a number of limitations to the GtA. The GtA is not a risk assessment that will produce a score; it is essentially a clinical check list providing recommendations for action. No formal reliability testing was completed on this Tool when first devised. However, we are intending to undertake test - retest reliability testing as part of a further research project. We do not know if completing the tool results in any change to clinical decision making. It is reasonable to hypothesise that encouraging the implementation of evidence based falls prevention advice will reduce falls. However we have not formally evaluated the GtA and

further research needs to be completed to assess whether the GtA is an effective way to implement falls prevention interventions. The GtA has not been tested for use by family members, care homes or paramedics. These are areas that need exploring as, over time and in different settings, the actions that could be taken may be very different. We would suggest caution is taken when using the GtA in these settings.

## **Conclusion**

The diversity and number of people and agencies involved in the development of the Guide to Action for Falls Prevention Tool has resulted in the production of a user friendly, quick, evidence based risk screening and action checklist, that can be used within health, social care and partner organizations.

Copies of the GtA Tool are available upon request from Kate Robertson at:

[kate.robertson@nottscommunityhealth.nhs.uk](mailto:kate.robertson@nottscommunityhealth.nhs.uk)

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Word count including abstract, key points, authors 2,745

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## References

- American Geriatrics Society, British Geriatrics Society, et al. (2010). "Prevention Guideline for the prevention of falls in older persons." Journal of the American Geriatric Society **49**: 664-672.
- Close, J. (2005). "Prevention of falls - time to put evidence into practice." Age and Ageing **34**: 98-100.
- Department of Health (2001). National Service Framework for Older People. London, Department of Health.
- Gillespie LD, Robertson MC, et al. (2009). "Interventions for preventing falls in older people living in the community." Cochrane Database of Systematic Reviews (2): CD007146. DOI: 10.1002/14651858.CD007146.pub2.
- Nandy, S., S. Parsons, et al. (2004). "Development and preliminary examination of the predictive validity of the Falls Risk Assessment Tool (FRAT) for use in primary care ." Journal of Public Health **26**(2): 138-143.
- National Institute for Health and Clinical Excellence. (2004). "Clinical practice guideline for the assessment and prevention of falls in older people." 2005.
- Oliver, D. (2008). "Falls risk-prediction tools for hospital inpatients. Time to put them to bed? ." Age and Ageing **37**(3): 248-250.
- Oliver, D., F. Daly, et al. (2004). "Risk factors and risk assessment tools for falls in hospital in-patients: a systematic review." Age and Ageing **30**(33): 122-1.
- Oliver, D. and F. Healey (2009). "Falls risk prediction tools for hospital inpatients: do they work? ." Nursing Times **105**(7): 18-21.
- Scuffham P, Chaplin S, et al. (2003). "Incidence and costs of unintentional falls in older people in the United Kingdom. Journal of Epidemiology & Community Health 2003;57(9):740-4." Journal of Epidemiology & Community Health **57**(9): 740-4.