

Role of allied health in falls risk assessment and interventions

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BMJ 2004;328:680 (20 March), doi:10.1136/bmj.328.7441.680
Interventions for the prevention of falls in older adults: systematic review and meta-analysis of randomised clinical trials

(John T Chang, Sally C Morton, Laurence Z Rubenstein, Walter A Mojica, Margaret Maglione, Marika J Suttrop, Elizabeth A Roth, Paul G Shekelle)

- **Conclusions** Interventions to prevent falls in older adults are effective in reducing both the risk of falling and the monthly rate of falling. The most effective intervention was a multifactorial falls risk assessment and management programme. Exercise programmes were also effective in reducing the risk of falling.

Falls risk assessment

- What tool?
- Who should assess?
- What to assess?
- What happens next?
- What services are available?



What tool?

- Many different types of falls assessment tools
 - Morse
 - FRAX
 - FRAT
 - FRAINT
 - Tinetti balance
 - 180° turn, timed walk
 - Berg balance scale
 - Elderly mobility scale
- Validity and reliability

Who should assess?

- Doctor

Allied health professional

- Physiotherapist
- Occupational Therapist
- Nurse
- Social worker
- Podiatrist / Orthotist
- Optician



What “systems” to assess?

Multi-factorial risk assessment

- Adequate Fall history
- Mental state / confusion
- Medication review
- Osteoporosis assessment
- Assessment of dizziness / syncope
- **Incontinence**
- **Standing BP measured**
- **Cardiovascular assessment**
- **Performance of ECG**
- **Vision and vestibular assessment**
- **Gait & balance assessed**
- **Home hazard assessed**
- **Fear of falling**

(Royal College Physician standards - falls audit 2007)

Examples of questions

- Have you fallen within the last 6 months?
- Do you ever suffer from dizzy spells?
- Do you take more than 5 medications?
- Do you have impaired vision or hearing
- Do you need to go to the toilet frequently during the night?
- Have you suffered a heart attack or stroke?
- Do you have limited mobility?

What happens next?

Scoring outcome

- 0-5 minimal risk?
- 6-10 moderate risk?
- 11-15 severe risk?

- Referral

- Falls service / falls register



What services are available?



Cornwall and Isles of Scilly
Falls Prevention and Management Strategy

Dec 2001

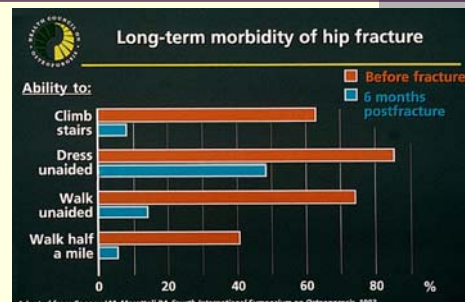
AHP Interventions

- Medication review
- BP, eye, ears, continence, ECG
- Rehabilitation
 - Mobility restoration
 - Exercises
 - Prevention
- Home safety / independence
- Health advice



Rehabilitation

Rehabilitation is a process which enables people to regain partial or full independence after illness or injury, giving them back as much control as possible over their lives



Rehabilitation interventions

- Balance training
- Multi-sensory training
- Postural strategies
- Strength training
- Functional interventions
- Footwear
- Walking aid

Examples of exercise programmes

Tai chi

- Use of balance, coordination and strength activities
- Based on 2-3 weekly sessions
- Evidence shows some support

(Wolf et al 2003)

Otago exercise programme

- Based on studies in NZ – Otago medical school
- Home programme
- Balance retraining
- Reasonable evidence but for a YEAR intervention

(Campbell and Robertson 2006)

Haines exercise programme

- Developed by Terry Haines in Australia
- Incorporates therapeutic elements of Tai Chi
- Transfer skills and strengthening

- RCT demonstrating reduction in falls

(DH Falls and fractures. Exercise training to prevent falls 2009)

Home safety and independence

- mop up spills straight away,
- remove clutter, trailing wires, and frayed carpet,
- consider getting handrails for the bathroom,
- use non-slip mats and rugs,
- use high wattage bulbs so you can see clearly,
- organise your home so that you keep climbing, stretching, and bending to a minimum, and don't bump into things,

(NPSA 2007, Help the Aged 2009)

- get help to do things you can't do safely,
- slow down in your regular routine and take things gradually,
- consider using a personal fall alarm system,
- don't walk on slippery floors in socks or tights,
- avoid wearing loose-fitting trailing clothes which might trip you up
- keep your home warm - cold muscles can lead to accidents.

Health advice

- have regular eye tests,
- take regular exercise, keep physically active, and keep your muscles as strong as possible,
- look after your feet, and wear well-fitting sensible shoes with thin soles, high sides and good grip,
- hip protectors worn under clothes reduce the risk of hip fracture by at least 50%,
- get a flu jab - being unwell can make people more prone to fall,
- don't mix alcohol with medication - it may cause dizziness and loss of balance,

Referral to local services

- let your GP know if you feel dizzy, and review your medication with your GP regularly,
- if you feel unwell, let your family, friend, or neighbour know,
- jerky movements may make you feel dizzy, particularly if you have arthritis, and
- have enough calcium and vitamin D in your diet to keep bones strong and reduce the risk of fracture. Calcium is found in dairy products (choose lower fat ones) and vitamin D is found in oily fish and meat.

- [Older Inpatients' Falls Support and Prevention Education Programme](#) - coordinated by Age Concern Stockport.
- [Falls Prevention for Older People through Differentiated Physical Activity Provision](#), led by Wiltshire Health Promotion Service.
- [Joint Strategy for the Prevention of Falls in Older People](#) - coordinated by North Derbyshire Health Authority.
- [Mind Your Step project](#), run by Birmingham North East PCG
- [Preventing Falls & Promoting Independence project](#), run by Merton, Sutton and Wandsworth Health Authority
- [The specialist falls service at King's College Hospital in London](#)
- [Falls Education Programme at the Elderly Health Unit of Broadgreen Hospital in Liverpool](#)



Thank you

- ***It's normal to lose your balance; it's not normal not to be able to catch your balance***

