Liverpool
Public Health
Observatory

# Interventions to reduce emergency hospital admissions for falls

**Cath Lewis**

**Liverpool Public Health Observatory**

Observatory Report Series number 81

clewis@liverpool.ac.uk

**January 2010**

PROVIDING INTELLIGENCE FOR THE PUBLIC HEALTH

**ACKNOWLEDGEMENTS**

Fran Bailey and Anne Dawson, Liverpool Public Health Observatory

Chris McLoughlin, IMPACT

Alex Scott-Samuel, Liverpool Public Health Observatory

**LIVERPOOL PUBLIC HEALTH OBSERVATORY**

Liverpool Public Health Observatory was founded in the autumn of 1990 as a research centre providing intelligence for public health for the five primary care trusts (PCTs) on Merseyside: Liverpool, St.Helens and Halton, Knowsley, Sefton and Wirral. It receives its core funding from these PCTs.

The Observatory is situated within the University of Liverpool's Division of Public Health. It is an independent unit. It is not part of the network of regional public health observatories that were established ten years later, in 2000. Copies of this report are available from our website http://www.liv.ac.uk/PublicHealth/obs.

# Contents

## 1. INTRODUCTION

Falls are a major cause of disability and mortality in the UK. Thirty per cent of those aged 65 and over who live in the community fall each year, rising to 45% for those aged 80 and over (Department of Health, 2009b). For a PCT and local authority with a population of 320,000, this means 15,500 of those aged over 65 will fall each year. Most will not seek help, 2,200 will attend A&E or a minor injury unit (MIU), and a similar number will call the ambulance service (Department of Health, 2009b).

Fractured neck of femur (hip) is the most serious consequence of falls among older people, with a mortality rate of 30% one year after a fall. In 2005/06, 68,416 patients with a fractured neck of femur were operated on in England at a cost to the NHS of at least £384 million, according to NHS Institute for Innovation and Improvement. Recurrent falls are associated with increased mortality, increased rates of hospitalisation, curtailment of daily activities and higher rates of institutionalisation.

## 2. KEY RECOMMENDATIONS - EFFECTIVE INTERVENTIONS

### EFFECTIVE POLICY INTERVENTIONS

- Use Local Area Agreements to prioritise falls prevention
- Payment by Results may be used as an incentive

### EFFECTIVE COMMUNITY INTERVENTIONS

- The most effective lifestyle messages focus on improving independence, and strength and balance, rather than focusing on falls
- Address underlying factors such as medications, eyesight, and nutrition, and modifications to the home such as improving maintenance of stairs and improving lighting

### EFFECTIVE HEALTH SERVICE INTERVENTIONS

- Improve hip fracture surgery, ensuring patients are admitted to an orthopaedic ward within 4 hours of presentation, and have surgery within 48 hours of admission
- Offer patients multi-disciplinary assessment to prevent future falls
- Develop fracture liaison services, ensuring those presenting to acute services are seen by a specialist nurse
- Implement falls care pathways, to agree contribution of each health professional
- Employ a falls co-ordinator to integrate hospital and community interventions, and to promote falls prevention to other agencies
- Address falls in hospital, and in care settings where rates of falls are three times higher than in the community, by implementing effective falls prevention policies, improving nutrition, staff training on modifiable risk factors, and education and exercise programmes for residents
- Develop the role of ambulance services, so that patients who are not conveyed to A & E can be referred to appropriate urgent care services

- Commissioners to liaise with Home Improvement Agencies and handyperson services to optimise safe home environments.

# 3. INTERVENTIONS

## 3.1 POLICY INTERVENTIONS

Local Area Agreements have been used in some areas to drive improvement, with falls prevention being prioritised by local authority and health partners (Department of Health, 2009b). From April 2010, new payments will be introduced under payment by results, following the commitment in High Quality Care for All (Department of Health, 2005), for providers who meet key standards for hip fracture care.

## 3.2 COMMUNITY INTERVENTIONS

### 3.2.1 LIFESTYLE ADVICE

Research carried out by Help the Aged (2005) shows that older people can be resistant to advice linked to 'falls', as the word had connotations of getting frail and losing independence. Key messages to maximize the effectiveness of lifestyle advice are;

- Focus on improving strength and balance, not falls
- Encourage people to chose advice and activities to suit them
- Don't focus on physical restriction such as wearing hip protectors - this is seen as overbearing
- Encourage people to seek help if they are getting unsteady, so that underlying factors such as eyesight, medications, strength and balance can be addressed.
- Those of risk of falls should be referred to a specialist falls service where available, or encouraged to have an assessment with a physiotherapist, GP or occupational therapist (Chartered Society of Physiotherapy, 2008).
- It is useful to discuss strategies with patients in case they do have a fall, such as learning how to get up from the floor, carrying a pedant alarm and positioning cushions and blankets in rooms so that they can be reached (Chartered Society of

Physiotherapy, 2008).

## 3.3 HEALTH SERVICE INTERVENTIONS

### 3.3.1 IMPROVE HIP FRACTURE SURGERY

Improved outcomes and reductions in variability in time to surgery, length of stay and other key indicators can be improved by;

- Admitting patients with hip fractures to an acute orthopaedic ward within 4 hours of presentation.
- All patients with hip fracture who are medically fit should have surgery within 48 hours of admission.
- Patients should be offered multi-disciplinary assessment and intervention to prevent future falls, and wider health implications, e.g. risk of pressure sores, should also be assessed (Department of Health, 2009b).

### 3.3.2 FRACTURE LIAISON SERVICES

The Department of Health (2009a), recommend establishment of fracture liaison services, for patients over the age of 50 who are admitted to hospital, or who attend A & E or outpatient clinics following low impact fractures caused by a trip or fall. Patients will be seen by a specialist nurse, whose role is to investigate and to start drug and other treatments according to NICE guidance, and to support medication adherence, as well as linking with falls services. NHS and local authority social care direct savings combined have been calculated at £290,708 over the 5 years, based on a population of 320,000.

### 3.3.3 FALLS SERVICE AND FALLS CO-ORDINATOR

Interventions in the community with the highest quality evidence base include;

- Falls care pathway, commissioned locally by health and social care from a multi-agency team. The pathway should agree the contribution of each professional to the

pathway, and specific proposals for incorporating falls prevention into mainstream services, as well as opportunities to consider adaptations needed in the home (Department of Health, 2009b). Older people in contact with health care professionals should be asked routinely whether they have fallen in the past year (NICE, 2004).

- Falls service and falls co-ordinator. Any patient presenting with a fall to any urgent care setting should be assessed for falls risk, as well as risk of fracture using guidance such as the FRAX assessment tool (Department of Health, 2009b). The assessment should include identification of falls history, as well as assessment of; balance and muscle strength, osteoporosis risk, patient fear relating to falling, visual impairment, cognitive and neurological status, urinary incontinence, and assessment of home hazards (NICE, 2004).

- A falls co-ordinator can ensure that hospital and community efforts to prevent falls are integrated, as well as promoting falls prevention to a range of other agencies (NICE, 2004; Department of Health, 2009b).

- Multi-factorial targeted interventions should include optimising medication, reducing visual disability, preserving bone health and maintaining independence (Department of Health, 2009b). The most important component is therapeutic exercise.

- Community-based therapeutic exercise – a national strategy (HM Government, 2009) highlights the benefits of strength training programmes for older people, which can lead to better mobility and a reduction in falls.

### 3.3.4 FALLS PREVENTION AND PROMOTING BONE HEALTH

Local falls strategies should include approaches to improving balance and strength. There is not conclusive evidence, according to the Department of Health (2009b), that addressing home hazards – such as poorly maintained stairs and poor lighting - alone will reduce falls and fractures, but this is effective as part of a multi-faceted intervention programme. The programme should also include education, exercise and nutrition. Home assessments should be provided.

Falls in hospitals and other care settings is also a significant problem – the National Patient Safety Agency (2007) estimates that in an average 800-bed acute hospital there will be over 1,260 falls each year, with significant direct and litigation costs. Some of these could be prevented by having an effective falls prevention policy, according to the Department of Health (2009b), and by the use of multifaceted interventions, which include both clinical and environmental measures. Falls in care homes are also three times the rate of those living in the community. Effective interventions to reduce falls in care homes also include provision of high strength vitamin D and calcium supplements, staff training on modifiable risk factors, environmental assessments, and education and exercise programmes for residents

(Department of Health, 2009b).

### 3.3.5 THE ROLE OF AMBULANCE SERVICES

10% of calls to the ambulance service are about someone who has fallen. Ambulance staff assess the need for patients to be conveyed to A & E. 25% are not conveyed, and there is an opportunity to refer these patients to primary care or falls prevention services where appropriate. In some areas ambulance staff are able to convey patients who do not need to go to A & E directly to appropriate urgent care services, such as out of hours primary care.

### 3.3.6 HOME IMPROVEMENT AGENCIES AND HANDYPERSON SERVICES

Home Improvement Agencies and handyperson services play an essential role in the delivery of aids and adaptations, and are critical partners with whom commissioners should engage when planning falls prevention services.

### 3.3.7 PARTNERSHIPS FOR OLDER PEOPLE PROJECTS

29 local authority-led partnerships were funded by the Department of Health to deliver and evaluate local, innovative schemes for older people. The projects, which included falls prevention and falls follow-up services, aimed to shift the focus from institutional and hospital-based crisis care towards better targeted interventions within community settings. The projects resulted in improved quality of life for older people, as well as cost savings (Department of Health, 2010).

## REFERENCES


Be Active, Be Healthy: A plan for getting the nation moving. HM Government, 2009.

Chartered Society of Physiotherapy Factsheet: Falls Prevention. Chartered Society of Physiotherapy, January 2008
http://www.csp.org.uk/uploads/documents/csp_FP_factsheet_2008.pdf

Close J, Ellis M, Hooper R, Glucksman E, Jackson S, Swift C. Prevention of falls in the elderly trial (PROFET) : a randomised controlled trial. *Lancet* 1999; 353: 93-97.

Don't mention the F-Word. Help the Aged 2005.
http://helptheaged.org.uk

Fracture prevention services, an economic evaluation. Department of Health, 2009a
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_110099.pdf

Falls and fractures: effective interventions in health and social care, Department of Health, 2009b
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@pg/documents/digitalasset/dh109122.pdf

High quality care for all: NHS Next Stage Review. Department of Health 2008.
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH 085825

Improving practice: improving care. Clinical practice guideline for the assessment and prevention of falls in older people
Guidelines commissioned by the National Institute for Clinical Excellence (NICE). November 2004.
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_111240

National Evaluation of Partnerships for Older People Projects: Final Report
Department of Health, Personal Social Services Research
18 January 2010
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_111240

NHS Institute for Innovation and Improvement
Focus on Fractured Neck of Femur
http://www.networks.nhs.uk/uploads/06/10/fracturedneckoffemur_v2.pdf: last accessed December 2009).

Slips, Trips and Falls in Hospital. National Patient safety Agency 2007.http://www.npsa.nhs.uk

**Liverpool Public Health Observatory**

Division of Public Health
Whelan Building
Quadrangle
University of Liverpool
Liverpool L69 3GB

Tel: 0151 794 5570/81
Fax: 0151 794 5588
E-mail: obs@liv.ac.uk
WWW: http://www.liv.ac.uk/PublicHealth/obs

UNIVERSITY OF
LIVERPOOL