

# HIP PROTECTOR TRIAL PROGRAMME

## SOUTH WEST KENT CARE HOMES

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## **HIP PROTECTOR TRIAL PROGRAMME**

### **Hip Protector Programme Co-ordinator** **Sue Betts**

#### **1. Introduction**

In September 2004 funding was provided by SWK PCT to undertake a pilot of hip protectors in care homes for older people. People living in residential care homes are at greater risk of falling and fracturing than their counterparts living in the community. The trial programme involved training of care staff in falls prevention and the use of hip protectors. It also aimed to establish and implement a Falls Register in order to evaluate falls, injuries, unplanned hospital admissions due to falls and hip protector compliance.

Hip protectors are quite simply 'crash helmets for hips'. They have the appearance of modified underwear, with pads designed to either absorb or dissipate the fall-generated energy away from the vulnerable area. The garments are easily washable, compatible with incontinence undergarments and the protective benefit is immediate.

NICE guidelines published in January 2005 state that 'data from cluster randomised trials provide some evidence that hip protectors are effective in the prevention of hip fractures in older people living in extended care settings who are considered at high risk'. Hip protectors can only be effective if the older person wears them and previous research indicates that compliance is harder to achieve among wearers of 'hard' shell hip protectors.

The trial programme therefore offered 'soft' shell HipSaver hip protectors from Win Health, due to their enhanced fit, comfort, the ease with which they can be put on or removed, and also the range of garments catering for the incontinence needs of residents in the care home setting.

#### **2. National Agenda: National Service Framework for Older People (NSF 2001) Standards:**

- NSF 1: Age Positive Practices
- NSF 2: Person Centre Care
- NSF 3: Intermediate Care (Early Discharge from Hospital)
- NSF 4: Appropriate Specialist Care (Service Evaluation)
- NSF 5: Stroke
- NSF 6: Falls (Reduce the Number of Falls and Falls with Injury)
- NSF 8: Promotion of Health and Active Life in Older People

### **3. Aims and Objectives**

The trial programme seeks to:

#### ***Provide:***

- ❖ Information to assist the PCT in implementing the National Service Framework for Older People Standards
- ❖ Level of staff awareness of falls prevention and the use of hip protectors

#### ***Identify:***

- ❖ Target Group for hip protectors
- ❖ Training needs of staff to document evidence and undertake audit

#### ***Establish and implement ongoing training and support:***

- ❖ Falls prevention and hip protector training for care home staff/carers
- ❖ Appropriate educational training for at-risk residents of care homes

#### ***Establish reporting mechanisms to evaluate:***

- ❖ Number of falls
- ❖ Unplanned hospital admissions due to falls
- ❖ Number of hip fractures
- ❖ Hip protector compliance rate
- ❖ Qualitative data from staff and residents on hip protector programme
- ❖ Effective use of resources

#### ***Prevent:***

- ❖ 2 or 3 hip fractures prevented @ £13,000 per hip fracture

### **4. Participants**

The original brief was to trial hip protectors in nursing homes in South West Kent. However research led us to focus our efforts among large residential homes (38-49 beds) and one dual nursing and residential home (44 beds), since they have a higher proportion of ambulant and semi-mobile residents, who are potentially at risk of falls and fracture.

Residents from 3 care homes - coded as A, B and C - were offered the opportunity to participate in the pilot. All agreed to provide data on compliance, falls and injurious falls in exchange for the provision of 'free of charge' hip protectors. One further home agreed to participate, but withdrew after 2 months, due to lack of wearer adherence.

The pilot budgeted for approximately 130 residents to be provided with 3 pairs of hip protectors based on '1 x wash, 1 wear and 1 x spare' at an approximate cost of £18 per pair. In reality, the figure was closer to £33 incl. VAT per pair.

## **5. Methodology**

Concurrent register of residents assessed for their risk of falling and osteoporosis and consented to wear hip protectors. The pilot tool was adapted from the tool used in a recent hip protector trial. The care staff recorded whether residents wore their hip protectors every day. There was provision to code reasons for non compliance as follows:

- 01 Refuses
- 02 Patient thinks 'no risk'
- 03 Uncomfortable
- 04 Too hot
- 05 Not available
- 06 Patient nursed in bed
- 07 Carer unaware
- 08 Patient doesn't get out of bed
- 09 Other

## **6. Key Results**

### ***Positive Aspects:***

- ❖ **No hip fractures** occurred in the 3 care homes during the 6 month trial programme. During the equivalent months prior to the trial (August 2004 – January 2005) 2 hip fractures were recorded.
- ❖ Fall related hospital admissions from the 3 homes were also dramatically reduced during the trial programme. There were only 2 A&E admissions due to falls from February – July 2005, while in the months immediately prior to the trial (August 2004 – January 2005) the number of fall related admissions reached 9.
- ❖ 58% of residents who were issued with hip protectors in A & B care homes were compliant for the duration of the six month pilot.
- ❖ 57% of residents who were issued with hip protectors in A, B & C (who joined the pilot in April –July 2005) were compliant.
- ❖ Wearing hip protectors has become the 'cultural norm' in Home A, where compliance was 44% at the outset in February, rising to **84% in June and 88% in July 2005**.
- ❖ Home B has also shown strong commitment to falls prevention and hip protection.
- ❖ February compliance was 43%, increasing to **88% in July**. It is hypothesised that carers who actively encourage the use of hip protectors achieve high compliance.

### ***Negative Aspects:***

- ❖ One care home withdrew from the trial programme after 2 months, due to a lack of compliance. Many of their residents were unwilling to wear hip protectors; some changed their minds when confronted by the hip protector, while others gave up due to problems of fitting, discomfort and appearance.

- ❖ Home C did not fully join the programme until April 2005, due to staffing problems, notably the abrupt departure of the hip protector key worker. Despite subsequent key worker enthusiasm, workload pressures have reduced the available time for the promotion, support and dutiful monitoring of hip protectors, and this is reflected in compliance levels of 16% in April 2005, the first month of monitoring, rising to 31% in July 2005.

### **Key Points:**

- ❖ Evaluation of findings should continue to be undertaken on a monthly basis to enable any trends that are identified to be investigated and resolved quickly.
- ❖ Training of care staff in the use of the monitoring tool needs to be robust.
- ❖ Training in audit process for Programme Co-ordinator would be advantageous.
- ❖ The monitoring tool used to capture falls history should be user friendly and provide robust data. Falls history is to be incorporated into an amended monitoring tool for easier use.

### **Key worker / Carers' Evaluation of the Trial Programme**

A questionnaire was used to evaluate carers' opinions on the programme, training, paperwork and hip protectors. Of the 65 carers from 3 care homes, who attended a training session, 37 questionnaires were completed and returned.

### **Positive Aspects:**

- ❖ 84% attended a training session
- ❖ 84% felt they received adequate support throughout the programme
- ❖ 84% will continue to encourage at-risk residents to wear hip protectors after the programme has ended
- ❖ 81% satisfied with Win Health's delivery service
- ❖ 92% consider HipSavers launder well
- ❖ 92% believe that hip protectors are improving the quality of life of their residents

### **Negative Aspects:**

- ❖ 24% think their residents find hip protectors difficult to use. Difficulty in pulling them up was cited as the main reason
- ❖ 22% think their residents find hip protectors uncomfortable (especially in hot weather)

## **Residents' Evaluation of Hip Protectors**

A questionnaire provided user feedback on hip protectors. Of the 54 residents issued with hip protectors, 36 completed a questionnaire. 30 of these residents walked indoors only, with or without assistance.

### ***Key results:***

- ❖ Most residents were satisfied with their hip protectors (97%) and wore them every day (83%)
- ❖ Only 1 resident out of the 36 respondents was dissatisfied with the quality and appearance of the hip protectors
- ❖ 72% thought they would continue to wear hip protectors for the foreseeable future or forever

### **7. Conclusion:**

Hip protectors are a cost effective intervention, if provided to the correct target group at high risk of falls and fractures. It has been shown that if an older person wears a hip protector, their risk of hip fracture is minimal. No hip fractures were sustained among hip protector wearers during our trial programme and unplanned hospital admissions due to falls were reduced from 9 to 2 during the 6 month period. These cost savings to the PCT far exceed the cost of the programme, notwithstanding the averted cost and suffering to the individuals themselves, their family and carers.

Hip protector compliance rates showed a substantial variation across the participating care homes from 16% to 88%. This was due to the wide-ranging support for the active promotion of hip protectors, and the best compliance rates were achieved when the staff, family and GP actively encouraged their use. It is particularly important to offer additional support when a patient begins trying/wearing hip protectors. Training of care staff is therefore paramount to compliance and they need to be made aware of the importance of recording all the information required.

Educating potential hip protector wearers is equally important. Older people need to be made aware of the causes and consequences of hip fracture to motivate them to wear hip protectors in spite of the extra effort and discomfort that may be caused by the hip protector.

Our findings indicate the need to target homes with the highest historical history of hip fractures and/or highest hospital admissions due to falls, as well as EMI Care Homes, where residents with dementia are at high risk of falling and frequently record high levels of compliance.

Summary: In our experience, hip protectors are a cost effective intervention if provided to the correct target group at high risk of falls and fractures. Choice of user friendly soft hip protectors appears to improve initial acceptance and subsequent compliance. Education and support are important motivating factors.