

**Physiotherapy works ✓**

# Fragility fractures and falls

**Respond to the first fracture; prevent the second. Physiotherapists do both.**

## What is a fragility fracture?

Fragility fractures occur as a result of normal activities, such as a fall from standing height. Hip, arm, back and wrist fractures are the most common, and frequently there is an underlying pathology of osteoporosis.

## Cost and size of the problem

Based on 2009/10 costs each hip fracture avoided would save approximately £10,170 (\*HRG HA11 - 14 inpatient). Every avoided fracture of the upper arm, back and wrist saves PbR tariff costs (combined in- and out-patients) of approximately £1,300, £3,246 and £1,082 respectively, plus a local social care reduction averaging £225 per case for back and wrist fractures.<sup>(1,2)</sup>

Falling is serious and frequent in people aged 65 and over. Each year, 35% of over-65s experience one or more falls. About 45% of people over 80 who live in the community fall each year. 10% – 25% of these people will sustain a serious injury.<sup>(3)</sup> Injury due to falls is the leading cause of mortality in older people aged over 75 in the UK.<sup>(4)</sup> Recurrent falls are associated with increased mortality, increased rates of hospitalisation, and higher rates of institutionalisation.<sup>(2)</sup>

Age UK says: "Despite costing the NHS over £4.6 million each day, adding up to £1.7 billion per year, the issue of people in later life falling over is all too often dismissed as an inevitable part of the ageing process."<sup>(5)</sup> ▶▶

**Half of people who have a fall will fall again within the next 12 months<sup>(2)</sup>**

**In a PCT population of 320,000 there are likely to be:**

- **45,000** people aged over 65 (2009), of whom **15,500** will fall each year, 6,700 twice or more
- **17,400** people with osteoporosis; **6,900** post-menopausal women with a previous fracture; and 1,000 post-menopausal women each year with a new fracture
- **1,250** fragility fractures per year, with **360** of these likely to be hip fractures.<sup>(3)</sup>

Physiotherapists work in hospitals, communities and in patients' homes. They have core and advanced knowledge and skills in reablement through which they:

- Prevent frailty through evidence-based exercise programmes
- Restore independence through falls care pathways
- Promote bone health and reduce accidents through encouraging physical activity and active lifestyles
- Lead falls clinics where at risk people receive thorough assessment and tailored advice.<sup>(6)</sup>
- Identify underlying pathologies, including osteoporosis, and signpost to other specialists.

## Conclusion

The potential savings from fragility fracture prevention are significant for the UK health economy. Physiotherapists can lead and input into many aspects of fragility fracture and falls prevention programmes, and physiotherapy should be part of these commissioned services.

## Case study

The physiotherapist-led Glasgow Falls Prevention Programme sees nearly 175 patients a month in their homes to assess risk factors and intervene on modifiable risk factors. This compares to 20 patients a month in English falls services. Between 1998 and 2008 there was a reduction in admissions due to falls in the home of 32%, falls in residential institutions of 27% and falls in the street of nearly 40%. Over the same period, the number of admissions for hip fractures decreased by 3.6%. This positive trend compares with a growth of hip fracture admissions of nearly 2% in England.<sup>(7)</sup>

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## Physiotherapy delivers on rehabilitation to reduce the cost burden

- NICE guidance requires all older people with recurrent falls, or at increased risk of falling, to be considered for an individualised multi-factorial intervention including evidence based strength and balance training, home hazard assessment and intervention.<sup>(8,9)</sup>
- \*Community-based falls prevention programmes targeting older people, particularly older women, can be highly cost saving, with the value of the benefits from reduced hospital admission significantly exceeding the costs of the intervention.<sup>(10, 11)</sup>
- Exercise programmes to prevent falls in older people at-risk are cost effective, with a cost per Quality Adjusted Life Year (QALY) of under **£10,000**. This is well below the level usually considered to be affordable in the NHS (about **£20,000 to £30,000** per QALY).<sup>(9)</sup>
- \*Preventing in-hospital falls by adopting a targeted falls prevention intervention using physiotherapist clinical judgement is cost saving compared to no-intervention.<sup>(12)</sup>

\* Only the exercise programme used British costs; however, the combined evidence is sufficiently robust to support the conclusion that clinically effective programmes, delivered to high risk patient groups, are likely to be cost saving for the NHS.

## Further information CSP Enquiry Handling Unit

Tel: 0207 306 6666  
Email: [enquiries@csp.org.uk](mailto:enquiries@csp.org.uk)  
Web: [www.csp.org.uk](http://www.csp.org.uk)

