

Fracture Liaison Service Implementation Toolkit

A Call to Action

Introduction

Osteoporosis is the fragile bone disease that causes painful, debilitating and sometimes fatal fractures. These fractures are a significant and growing public health issue which are now widely recognised as a national healthcare priority.^{1,2}

Every year, people in the UK are estimated to attend hospital for over 300,000 fragility fractures.³ The economic and emotional burden on individuals, their families and society as a result of fractures is profound and will continue to grow as the UK population ages. Added to this, the cost to the NHS for fragility fractures is significant. Despite osteoporosis being a common condition, with significant impact upon both the individual's quality of life and the healthcare system, public awareness of osteoporosis is relatively low, with only 25% of adults being familiar with the term "osteoporosis".⁴

Backed up by a growing body of evidence, one of the most effective points of intervention is secondary fracture prevention via a best practice Fracture Liaison Service (FLS). Put simply, this service will systematically identify, treat and refer to appropriate services all eligible patients aged over 50 years within a local population who have suffered a fragility fracture with the aim of reducing subsequent fractures.

This document sets out the case for investing in an FLS – a model with over 15 years' evidence of effectiveness.

How are individuals affected by osteoporosis and fragility fractures?

Osteoporosis affects approximately 3 million people in the UK;⁵ it is a disease characterised by low bone density with a consequent increase in bone fragility.⁶ Although it can occur at any age, osteoporosis is more common in older people⁷ and individuals with osteoporosis are more susceptible to broken bones (or fragility fractures) as a result of a mechanical force that would not ordinarily result in fracture (low-level trauma).⁸

Fragility fractures most commonly occur in the spine, hip and wrist but can also occur in the arm, pelvis, ribs and other bones. NICE Clinical Guideline 146 states that hip fractures typically require hospitalisation – they permanently disable 50% of those affected, preventing independent living, and in 20% of cases they are fatal.⁹

What is the impact of fragility fractures on UK society?

In 2000, the direct medical costs to the UK healthcare economy, arising from fragility fractures, were estimated at £1.8 billion, with an expectation that this figure would rise to approximately £2.2 billion by 2025.¹⁰ The majority of these costs relate to the care of hip fractures.¹⁰ More current figures estimate that in the UK each year hip fractures result in around 85,000 hospital admissions¹¹ and cost hospitals approximately £1.9 billion.¹²

What is a Fracture Liaison Service?

The term 'Fracture Liaison Service' was first used in the late 1990s to describe a service that assesses and treats patients in order to reduce their future risk of suffering a fracture.¹³

An FLS is a dedicated clinical service that will systematically:

- **Identify** all patients over the age of 50 years within a local population who have suffered a fragility fracture
- **Investigate** to assess bone health and falls risk
- **Inform** patients to enable them to understand future fracture risk and what can be done to reduce this
- **Intervene** to improve bone health and refers to other specialist services including falls prevention
- **Integrate** patient care across primary and secondary care to ensure long-term management including making sure that patients are concordant with their treatment in order to obtain its benefits
- Ensure **Quality** through active data capture, audit, continuing professional development and peer review.

An FLS is an essential component of a comprehensive and integrated approach to preventing falls and fractures among people over the age of 50 in a local health system. Referral to the FLS should be a part of the pathway for all patients with fragility fractures.

There is more than one model of FLS and each one should be developed to meet local needs and fit with the local services and pathways already in place for the prevention and treatment of fractures.

The National Osteoporosis Society '5IQ' model

An effective FLS must also develop a strong culture of **Quality**. The National Osteoporosis Society has taken the concept of the five 'Is' (Identify, Investigate, Intervene, Inform, Integrate) plus Quality to develop the '5IQ' model for service improvement. For more information see **Effective Secondary Prevention of Fragility Fractures: Clinical Standards for Fracture Liaison Services**.



Figure 1: The National Osteoporosis Society '5IQ' model.

The diagram below provides an overview of the essential components of an FLS:

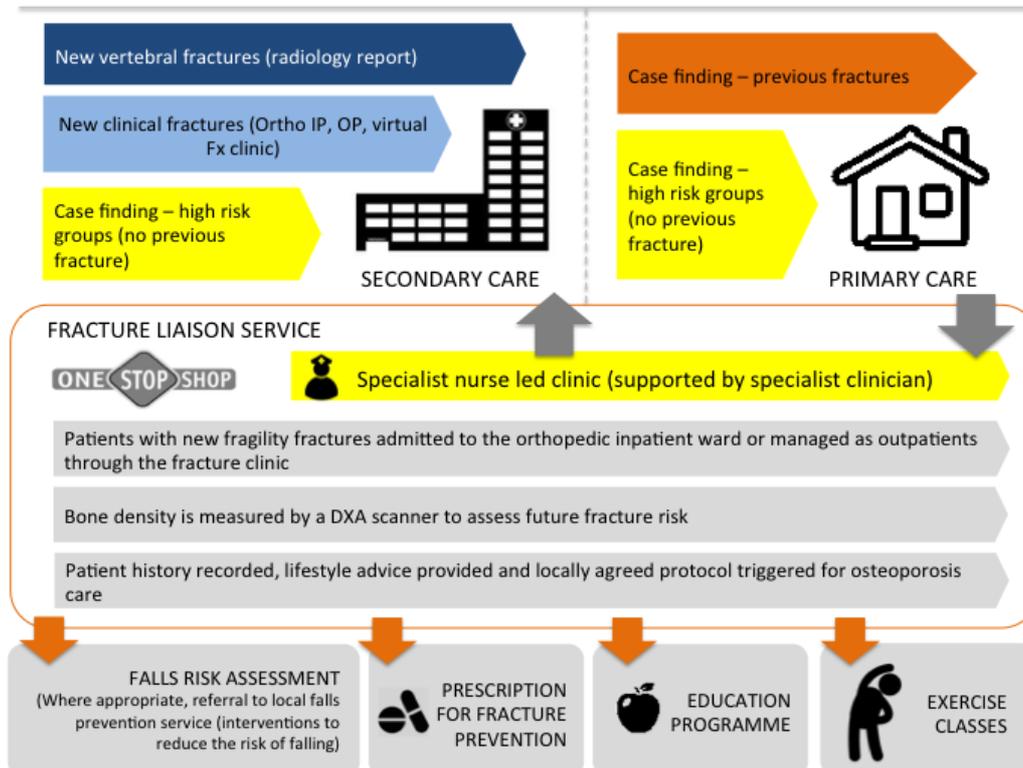


Figure 2: FLS overview: adapted from McLellan et al. 2003¹³

What is the case for investment?

There is strong evidence from around the world that investment in FLSs results in improved quality of care, reduced costs and ultimately a more efficient and preventative model for the management of fractures.¹⁴ In 2009, a Department of Health economic evaluation of FLSs suggested that the potential saving to the NHS in England could be as much as £8.5 million over a 5-year period. This equates to approximately £290,708 per locality of 320,000.¹⁵

At present only 42% of health economies in the UK offer some form of FLS.^{2,16} This figure presents an opportunity for clinicians and commissioners to improve care significantly and to realise savings through the development of effective fracture treatment, assessment and prevention services.

- In the UK, FLSs are shown to be achieving significant cost savings over a 5-year period and up to nine times higher rates of assessment and treatment for the prevention of secondary fractures than other models of care found in the UK.¹⁷
- Each year in the UK fractures result in around 85,000 hospital admissions¹¹ and cost hospitals approximately £1.9 billion.¹²
- In 2011, it was estimated that half of all hip fracture cases were secondary fractures and up to half of the subsequent cases – about 20,000 cases a year – could be prevented.¹⁴

The Department of Health's '*Falls and Fractures: effective interventions in health and social care*' paper outlines four objectives, in order of priority, that have been empirically shown to have a positive impact on the management and treatment of falls and fractures. An effective local FLS provides a systematic approach to achieving these objectives.¹⁸

How to develop a Fracture Liaison Service

The National Osteoporosis Society continues to campaign for an FLS to be linked to every hospital in the UK.

The FLS model has been shown to be both clinically and cost effective, providing a framework to deliver effective and high-quality services. For commissioners and clinicians wishing to establish or improve an FLS in their local area the National Osteoporosis Society has published the Fracture Liaison Service Implementation Toolkit. The toolkit includes a service specification, an economic case, a service improvement guide, a project plan, a template business case and other materials that can guide you through the process of setting up and/or developing an FLS. The toolkit can be found at:

www.nos.org.uk/toolkit

What next?

The National Osteoporosis Society may also be able to offer additional practical support. Please contact us at:

<http://www.nos.org.uk/>

Tel: 0845 450 0230

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