



Bone Care 2020

A systematic approach to hip
fracture care and prevention
for New Zealand



OSTEOPOROSIS
NEW ZEALAND

Building a stronger future

Executive Summary

Introduction

Osteoporotic fragility fractures exert a tremendous burden on older New Zealanders, the national economy and our health and social care system. In 2007, the total cost of osteoporosis was over NZ\$1 Billion*, with hip fracture care alone costing NZ\$105 Million. Every day, we spend NZ\$325,000 treating fractures and have 312 people in hospital beds recovering from fractures.

Half of hip fracture sufferers will require long-term care and a quarter will suffer an early death. This burden will increase rapidly as New Zealand's 1 million baby boomers retire and age.

Currently, New Zealand has no coordinated, nationwide strategy or systems to manage the increasing number of older New Zealanders at risk of fragility fractures.

The Problem

International research shows that half of hip fracture patients suffer a fragility fracture at another skeletal site prior to breaking their hip. Nationally representative audits show that people presenting to New Zealand hospitals with fragility fractures do not receive the globally endorsed standards of secondary preventive care to reduce future fracture risk.

Response overseas to this issue has been the successful implementation of Fracture Liaison Services (FLS), a coordinated service where patients presenting with a fragility fracture receive osteoporosis assessment and treatment where needed, and interventions to reduce falls risk. The outcome of FLS has been a significant reduction in fracture incidence and associated costs. FLS would ensure equitable access to PHARMAC subsidised treatments for osteoporosis throughout New Zealand.

While the emphasis in this paper is on post-fracture care for all fragility fracture sufferers, the Australian and New Zealand Society for Geriatric Medicine has published detailed guidance on best practice for Orthogeriatric Services, which have been shown to dramatically improve post-hip fracture care. A new National Hip Fracture Registry, which is in development, will provide an opportunity to benchmark care against professional standards.

Solutions

Osteoporosis New Zealand proposes to work with the Ministry of Health to develop a national strategy. The aim is to implement a systematic approach to hip fracture care and prevention.

An important component of that strategy will be the establishment of FLS throughout New Zealand, in addition to a National Hip Fracture Registry.

Benefits

To improve quality and consistency of care for all New Zealanders suffering fragility fractures at all skeletal sites.

Fracture Liaison Services and Orthogeriatric Services established by District Health Boards throughout New Zealand are likely to prevent up to 1,000 cases of hip fracture and save NZ\$20 million dollars annually. Additional savings will be accrued by prevention of fragility fractures at other skeletal sites.

* *The Burden of Osteoporosis in New Zealand: 2007-2020. The University of Auckland*

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The need for a national strategy

A national strategy to implement a systematic approach to hip fracture care and prevention is required because current care is fragmented

Hip fractures exert a tremendous burden on older New Zealanders, the national economy and our health and social care system. During 2007, more than 3,800 people presented to our hospitals with a broken hip at a total cost of NZ\$105 million¹. Whilst all osteoporotic fractures are associated with significant pain and loss of quality of life², hip fracture sufferers experience the most serious disabilities³. Almost 50% will require long-term care⁴ and a quarter will suffer an early death⁵. Half of hip fracture survivors require help with activities of daily living⁶ and during the first year after hip fracture, half of those who walked unaided prior to their fracture will no longer be able to walk independently⁷.

'Hip fracture is all too often the final destination of a 30-year journey fuelled by decreasing bone strength and increasing falls risk'⁸

As New Zealand's 1 million baby boomers⁹ began to retire in 2011, the impact of osteoporosis on our ageing population necessitates development of a national strategy with two key aims:

1. To improve the quality and consistency of care for those who break their hip, and
2. To make a determined effort to prevent as many hip fractures as possible

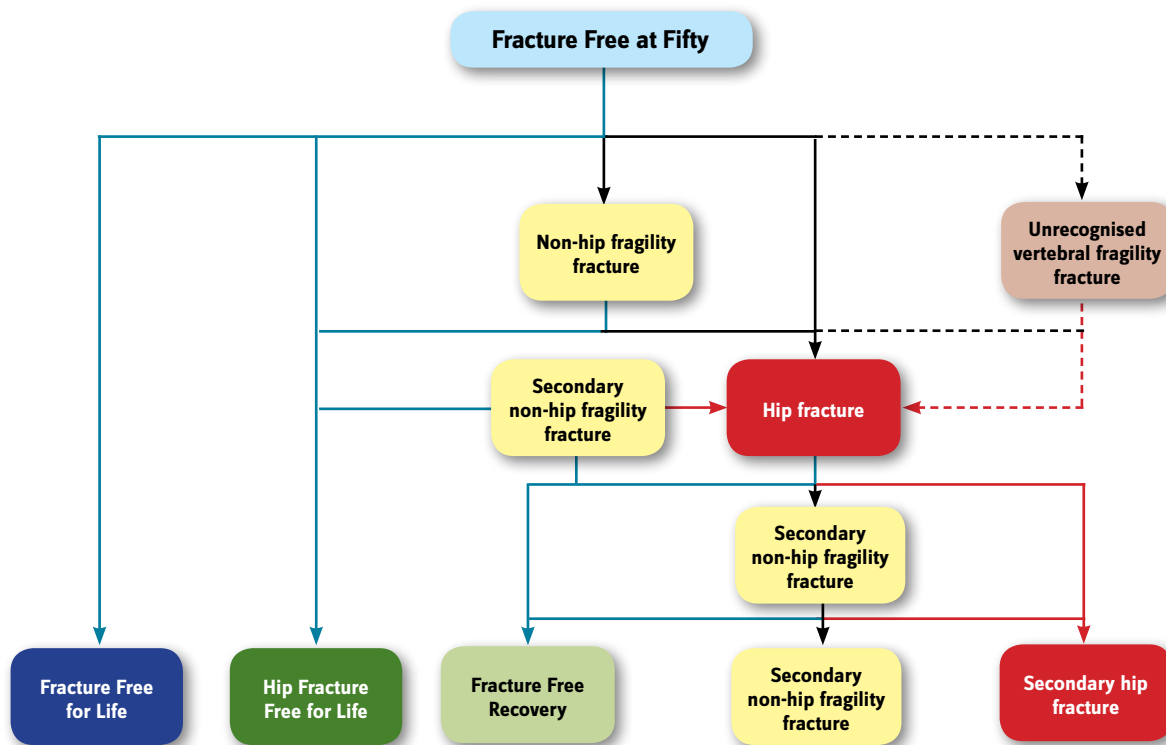
In order to determine how best to devise and implement such a strategy, firstly we need to consider what happens in the years before people present to hospital with a hip fracture. The various patient experiences are illustrated in the 'fragility fracture cycle' in figure 1. A study based on records from the UK General Practice Research Database (GPRD)¹⁰ reported the lifetime risk of any fracture at age 50 as 53% for women and 21% for men. Thus, less than one half of women will be fracture free for life. The same study estimated lifetime risks of fracture by gender at age 50 as:

- **Women:** Hip 11.4%, Wrist 16.6%, Vertebra 3.1%
- **Men:** Hip 3.1%, Wrist 2.9%, Vertebra 1.2%

A crucial observation is that **fracture begets fracture**. Several studies have evaluated future fracture risk associated with fractures at various skeletal sites. Two major meta-analyses^{11,12} found that a prior fracture at any site is associated with a doubling of future fracture risk. From the obverse perspective, we have known since the 1980s that half of patients presenting with hip fractures today have experienced prior fragility fractures in the past¹³⁻¹⁶.

Being able to identify patients that are at high risk of suffering hip fracture in the future is important, but perhaps a more pressing question is whether we can reduce that fracture risk with intervention. In short, we can. During the last two decades, a broad range of therapies have been assessed in large-scale randomised clinical trials which have demonstrated consistent fracture reduction efficacy. The principle agents licensed for the treatment of osteoporosis throughout the world have been shown to reduce the incidence of fractures by 30-50%¹⁷⁻²⁸. Fracture reduction efficacy of 50% has been observed for patients with a history of multiple fractures²⁹. In New Zealand, PHARMAC has approved osteoporosis medicines for the secondary prevention of fragility fractures³⁰.

Figure 1: The fragility fracture cycle³¹



Reproduced from the Herald Fractures Report 2010 with permission of the Department of Health in England

Large scale epidemiological studies of older women from Australia and the UK provide us with an indication of the likely prevalence of fragility fracture i.e. what proportion of older women have already broken a bone as a result osteoporosis and, usually, a fall?

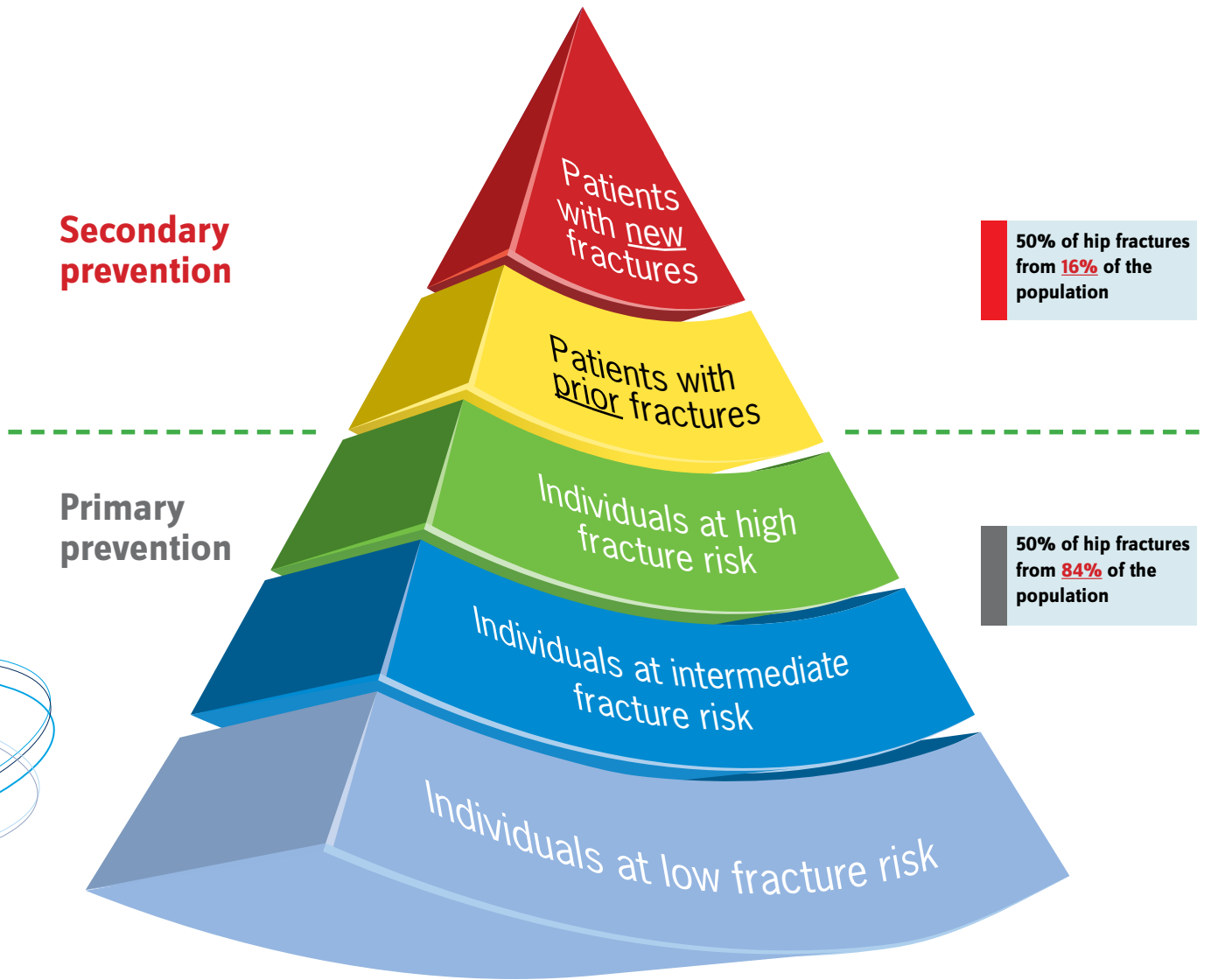
- **Australia:** The Australian BoneCare Study³² evaluated 70,000 women aged over 60 years from primary care physicians' lists. Twenty nine percent of these women reported a fracture history; 66% reported 1 fracture, 22% reported 2 fractures and 12% reported 3 - 14 fractures.
- **United Kingdom:** A burden of disease model published in 2011³³ estimated the number of postmenopausal women in the UK with osteoporosis and fracture history for the period 2010 to 2021. In 2010, over 1.5 million women were likely to have suffered >1 fracture representing 13% of the postmenopausal population. Notably, 380,000 of these women had suffered >2 fractures and 96,000 at least 3 fractures.

The 'pyramid' in figure 2 allows us to visualise these data and what they mean. A mid-range estimate, taken from a consensus guideline³⁴, of the proportion of the post-menopausal population that have suffered at least one fragility fracture is 16%. Given that 50% of hip fracture sufferers have fractured before, from 16% of the postmenopausal population will emanate 50% of future hip fracture cases^{35, 36}. Individuals who suffer new fragility fractures will present to medical services, be it hospital emergency departments or community-based fracture units, and so provide an obvious opportunity for intervention.

A priority for the New Zealand healthcare system should be, in every case, to **respond to the first fracture to prevent the second**. Unfortunately, as will be discussed in the next section of this paper, the current usual standard of care for fracture patients in New Zealand is no care.



Figure 2. Fracture risk and ease of case-finding: Effective targeting of healthcare resources³⁶



Half of all hip fracture patients give us advance notice that they will present to an orthopaedic trauma unit!

Current standards of care in New Zealand

The care of hip fracture sufferers

The need for effective orthopaedic-orthogeriatric co-care of patients admitted to hospital with hip fractures is well recognised in professional guidance^{34, 38, 39}, including that of the Australian and New Zealand Society for Geriatric Medicine³⁹. As a consequence, the subspecialty of orthogeriatric medicine is a rapidly growing professional group throughout the world and is becoming particularly well established in New Zealand⁴⁰⁻⁴⁶. Several centres have published encouraging reports on rates of post-hip fracture osteoporosis treatment. However, we currently lack a means to benchmark standards of care across the country.

In late 2011, an Australian and New Zealand Hip Fracture Registry Steering Group (ANZ HFR) was formed by enthusiasts on both sides of the Tasman, with the express intention of developing Hip Fracture Registries in New Zealand and throughout Australia⁴⁷. This effort has been inspired by the establishment of the National Hip Fracture Database (NHFD) in the UK⁴⁸. The NHFD has become the largest audit of hip fracture care in the world. The 2011 NHFD Report described the care of >53,000 people who suffered a hip fracture between April 2010 and March 2011⁴⁹. In total, almost 190,000 cases are currently registered on the NHFD, with >16,000 cases having been registered in the first quarter of 2012⁵⁰. All hospitals in England, Wales and Northern Ireland are now registered with NHFD, and 98% of those registered are regularly submitting data. Taken together, this would suggest that information on the quality of care for almost 90% of hip fractures occurring in the three Nations served is being captured.

The UK NHFD is a collaborative venture backed by the British Orthopaedic Association and British Geriatrics Society which has been developed in partnership with other relevant professional organisations and patients' societies. In a similar spirit, the ANZ HFR has sought engagement with all relevant professional organisations and patient societies. Osteoporosis New Zealand endorses the ANZ HFR and its aims and objectives, as does the ANZ Society for Geriatric Medicine, the ANZ Society for Bone and Mineral Research, the ANZ College of Anaesthetists and the Health Quality and Safety Commission New Zealand, in addition to analogous organisations in Australia.

During 2012, the ground work to establish a National Hip Fracture Registry in New Zealand is underway and Osteoporosis New Zealand is committed to working with stakeholder organisations to maximise the impact of this important initiative. The ANZ HFR newsletter will feature on the Osteoporosis New Zealand website to update visitors on progress as it occurs.

'Any condition with a 1-year mortality rate approaching 20% and a very significant morbidity rate demands that we make every effort to reduce the impact of the condition on society'³⁷

**Professor Geoffrey Horne,
Wellington Hospital 'Hip
fracture management - we
need to do better' New
Zealand Medical Journal,
May 2007**

The prevention of hip fracture

Given the scale of the challenge posed by osteoporosis and related fractures, the question for policy makers, health care professionals and patients, and the organisations representing them, is where to start? In light of the opportunity presented by secondary fracture prevention discussed previously in this paper, our priority is very clear:

For the period 2012-2015, Osteoporosis New Zealand will be dedicated to ensuring that every patient presenting to urgent care services in New Zealand with a fragility fracture receives appropriate osteoporosis management and falls assessment to reduce their future fracture risk

Our rationale for taking this decision is as follows. National⁵¹⁻⁶², regional^{15, 63-69} and local^{14, 16, 70-97} audits conducted across the world have shown a secondary fracture prevention care gap to be ubiquitous. In the absence of a systematic approach to delivery of secondary preventive care, **'usual care' is no care**. This is particularly acute for patients presenting with non-hip fragility fractures, described as 'Herald Fractures' by the Department of Health in England^{31, 98} or 'Signal Fractures' by leading investigators in Australia⁴ for reasons now obvious; half of hip fracture patients suffer a prior fragility fracture before breaking their hip.

A multi-centre audit evaluated osteoporosis intervention by 8 New Zealand orthopaedic units for patients admitted to hospital with fragility fractures^{99, 100}. Key findings included:

- 23% of fracture patients were taking some form of osteoporosis treatment on admission; >50% of these patients were not taking a bisphosphonate
- 77% of patients that were not taking osteoporosis medication on admission
 - Of these, **<3% had a DXA scan organised in response to their new fracture**
- 12% of patients were initiated on treatment, of which the majority was started by a visiting orthogeriatric service which was available at two of the hospitals; nearly all of these patients were hip fracture sufferers
- Osteoporosis was mentioned in the discharge summaries for only 30% of the patients that were already taking osteoporosis treatment, and just 11% of the patients started on medication during their admission

This study highlighted a near universal secondary prevention care gap for patients with non-hip fragility fractures. In the absence of an orthogeriatric service, the care gap is extended to hip fracture patients. Establishment of orthogeriatric services has resulted in dramatic improvements in post-hip fracture osteoporosis treatment at hospitals in Christchurch^{42, 44} and Auckland^{41, 45}.

A 2012 publication described secondary prevention rates for patients admitted to Waitemata District Health Board with a primary or secondary diagnosis of vertebral fracture¹⁰¹. One third of patients were receiving the optimal combination of treatments advocated in evidence-based guidelines. The authors state that to their knowledge this study was the first published audit of the secondary prevention of vertebral fractures in New Zealand.

The current provision of secondary preventive care for patients presenting to New Zealand hospitals with fragility fractures has been described as follows¹⁰²:

- Hip fracture patients: Where orthogeriatric services are available, high quality osteoporosis care will be delivered
- Vertebral fracture patients: Around a third of patients are being managed optimally according to professional guidance
- Non-hip, non-vertebral fracture patients: **Usual care is no care**

Systems to deliver best practice

Orthogeriatric Services

Orthogeriatric Services (OGS) have been established to improve the quality and efficiency of care for patients presenting with hip fractures. The Australian and New Zealand Society for Geriatric Medicine³⁹ Position Statement on Orthogeriatric Care provides detailed guidance on best practice throughout the pre-, peri- and post-operative phases of care for older fracture patients admitted to hospital. A key focus is the concept of early multidisciplinary coordinated care to reduce in-hospital mortality and medical complications, and to improve functional outcomes. An integrated approach to post-fracture osteoporosis management and falls interventions is advocated. As stated previously, delivery of effective orthogeriatric care has been shown to dramatically improve post-hip fracture rates of osteoporosis treatment at hospitals in Christchurch^{42, 44} and Auckland^{41, 45}.

In the UK, the National Hip Fracture Database (NHFD) has provided a means to evaluate the provision of secondary preventive care for practically all hip fracture sufferers nationally. The NHFD 2011 Report indicated that 66% of the >53,000 patients evaluated were discharged on bone protection medication and 81% had received a falls assessment prior to discharge⁴⁹. In due course, a National Hip Fracture Registry in New Zealand will be able to provide clinicians, administrators, the Health Quality and Safety Commission, the Ministry of Health and the Accident Compensation Corporation with accurate data for every hip fracture sufferer in New Zealand. For transparency amongst all stakeholder groups, crucially including the public, the UK NHFD presents data in a de-anonymised form i.e. performance at every hospital against professionally agreed standards of care is in the public domain. Osteoporosis New Zealand would strongly encourage similar transparency when our 'NHFR' becomes operational, as the patients we represent should be informed of the standards of care provided by their local hospital.

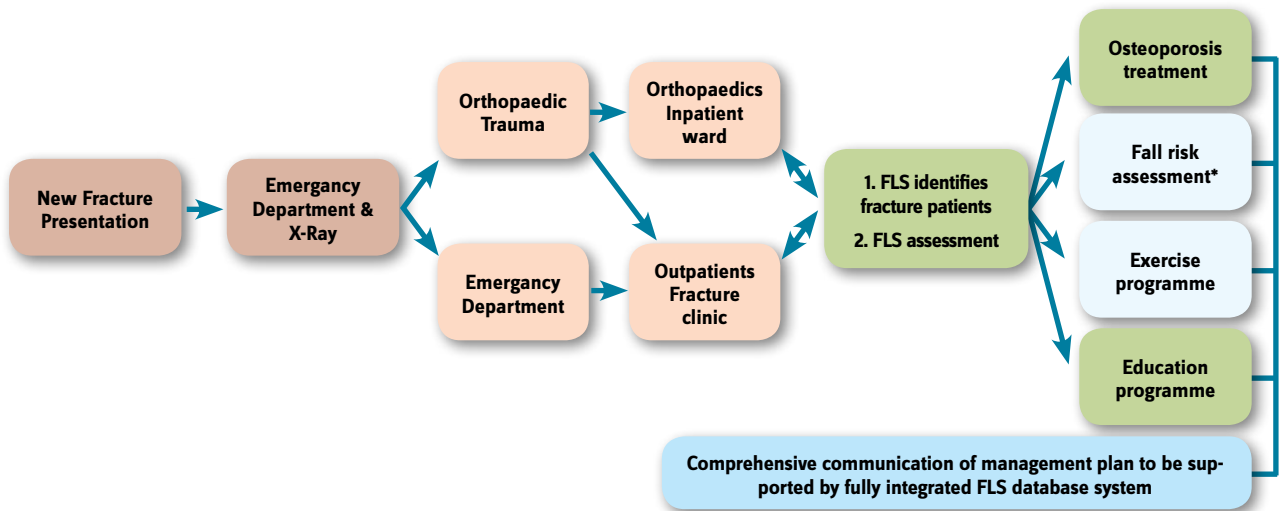
Fracture Liaison Services

Professional organisations^{34, 103-105}, patient societies^{35, 105-107} and policymakers¹⁰⁸⁻¹¹⁵ throughout the world have recognised the need for systematic approaches to secondary fracture prevention to close the care gap. Various terms have been used to describe exemplar service models, including 'Fracture Liaison Services' in Europe¹¹⁶⁻¹²⁵ and Australia¹²⁶⁻¹³⁰, 'Co-ordinator Programs' in Canada¹³¹⁻¹³⁴ and 'Care Manager Programs' in the United States¹³⁵⁻¹³⁷. For the purposes of this paper, we shall use the term Fracture Liaison Service (FLS). The following four case studies provide an illustration of how FLS operate and what they have achieved in terms of delivery of secondary preventive care, impact on secondary fracture rates and cost-effectiveness.

The Glasgow Fracture Liaison Service, UK

First developed in 1999, the Glasgow FLS is a system to ensure fracture risk assessment, and treatment where appropriate, is delivered to all patients with fragility fractures¹¹⁷. The FLS is a 'doctor light' service and is primarily delivered by clinical nurse specialists, who work to pre-agreed protocols to case-find and assess fracture patients. Consultant Endocrinologists provide medical leadership for the Glasgow FLS. A critical success factor in development of the Glasgow FLS was establishment of a multi-disciplinary stakeholder group from project outset, with representation from all relevant hospital specialities, local primary care and regional health authority and administrative groups.

Figure 3. The structure of the Glasgow Fracture Liaison Service adapted from The care of patients with fragility fracture³⁴



* Older patients, where appropriate, are identified and referred for falls assessment

During the first 18 months of operations¹⁷:

- More than 4,600 patients with fractures of the hip, wrist, upper arm, ankle, foot, hand and other sites were seen by Fracture Liaison Nurse Specialists
- Nearly three-quarters were considered for BMD testing and treatment was recommended for approximately 20% of patients without the need for BMD testing
- 82% of patients tested were found to be osteopenic or osteoporotic at the hip or spine

During the period 2000-2010, 50,000 consecutive fracture patients were assessed by the Glasgow FLS. During this period, hip fracture rates in Glasgow reduced by 7.3% versus almost a 17% increase in England¹³⁸, where only 37% of localities operated an FLS⁵⁶ by late 2010. A Scottish national audit compared case ascertainment for hip and wrist fractures in Glasgow versus 5 other centres operating less systematic models of care¹⁵. Ninety-seven percent of hip fracture and 95% of wrist fracture patients were assessed by the Glasgow FLS whereas less than 30% of fracture patients were assessed by any other service configuration. In May 2011, a formal cost-effectiveness analysis of the Glasgow FLS was published¹³⁹. This study concluded that 18 fractures were prevented, including 11 hip fractures, and £21,000 was saved per 1,000 patients managed by the Glasgow FLS versus 'usual care' in the UK.

The Kaiser Permanente Healthy Bones Program, USA

In the late 1990s, Kaiser Permanente in Southern California resolved to close the secondary fracture prevention gap for patients presenting to hospital with hip fractures. Subsequently, the program was expanded to include all older patients presenting with fragility fractures at any site. As time and resources permitted, the Kaiser team undertook a systematic approach to delivering primary fracture prevention to patients at high risk of suffering their first fragility fracture. The Healthy Bones Program is underpinned by effective case-finding made possible by the state-of-the-art HealthConnect® electronic medical record¹⁴⁰. The program is primarily delivered by Care Managers and Nurse Practitioners, who serve as co-ordinators and disease managers.

In 2008, a 37% reduction in the expected hip fracture rate was reported for the population served by the Kaiser Permanente Southern California system¹⁴¹. This corresponds to the prevention of 935 hip fractures in the year 2006 (2,510 hip fractures were predicted by actuarial analysis, and 1,575 fractures were actually observed). The cost of treating a hip fracture was approximately US\$33,000. On that basis, it was estimated that the program saved more than US\$30.8 million for Kaiser Permanente Southern California in the 2006.

St. Michael's Hospital Toronto, Osteoporosis Exemplary Care Program, Canada

In 2002, the orthopaedic unit at a university teaching hospital in Toronto hired an osteoporosis coordinator to identify patients with a fragility fracture and to coordinate their education, assessment, referral, and treatment of underlying osteoporosis¹³¹. The Osteoporosis Exemplary Care Program (OECF) provided secondary preventive care to fracture patients managed in both the in- and out-patient settings.

Four hundred and thirty fracture patients were evaluated during the first year of operations (276 out-patients and 154 in-patients). Almost all (96%) of these patients received appropriate osteoporosis care:

- 80 out-patients (36%) were treated for osteoporosis prior to assessment by the OECF
- 124 out-patients (56%) were referred to the Metabolic Bone Disease Clinic or to their GP for osteoporosis treatment
- 31% of the 128 in-patients were treated for osteoporosis prior to assessment by the OECF
- Treatment was initiated for a further 24% of in-patients and another 34% were referred to the Metabolic Bone Disease Clinic or their GP for post-discharge consultation on osteoporosis treatment

A cost-effectiveness analysis¹⁴² of the OECF concluded that a hospital that hired an osteoporosis coordinator who manages 500 patients with fragility fractures annually could reduce the number of subsequent hip fractures from 34 to 31 in the first year, with a net hospital cost savings of CN\$48,950 (Canadian dollars in year 2004 values), with use of conservative assumptions. Sensitivity analysis indicated a 90% probability that hiring a coordinator costs less than CN\$25,000 per hip fracture avoided. Hiring a coordinator is a cost-saving measure even when the coordinator manages as few as 350 patients annually. Greater savings were anticipated after the first year and when additional costs such as rehabilitation and dependency costs are considered.

Minimal Trauma Fracture Liaison Service, Concord Repatriation General Hospital Sydney, Australia

The Minimal Trauma Fracture Liaison (MTFL) service¹²⁸ was established in 2005 at this large tertiary referral centre in Sydney. The MTFL service provides a good illustration of effective collaboration between a physician-led FLS and the hospital's Orthogeriatric Service; the MTFL provides care for non-frail patients with fragility fractures whilst the Orthogeriatric Service¹⁴³ focuses on frail patients, including the majority of hip fractures. The MTFL is delivered by an advanced trainee (i.e. a physician in his/her 4th-6th year of post-graduate training) which required a 0.4-0.5 FTE appointment.

The impact of the MTFL service was evaluated after 4 years. Fracture patients who chose to decline the consultation freely offered by the service, in favour of follow-up with their primary care physician, were considered as a control group for statistical comparison. Refracture incidence for those patients managed by the MTFL service was 80% lower than the control group.

A recently published cost-effectiveness analysis¹⁴⁴ of the MTFL service reported:

- A mean improvement in discounted quality-adjusted life expectancy per patient of 0.089 quality-adjusted life year gained
- Partial offset of the higher costs of the MTFL service by a decrease in subsequent fractures, which led to an overall discounted cost increase of AU\$1,486 per patient over the 10-year simulation period
- The incremental costs per QALY gained (incremental cost-effectiveness ratio - ICER) were AU\$17,291, which is well below the Australian accepted maximum willingness to pay for one QALY gained of AU\$50,000

Fracture Liaison Services improve the quality of secondary preventive care which will reduce costs through a reduction in unscheduled emergency admissions for fragility fractures. Every District Health Board in New Zealand should undertake an audit of current standards of secondary preventive care. In response to the findings of those audits, FLS should be established to close existing care gaps.

The Role of Primary Care

Management of long-term conditions is the forte of the primary care team. Osteoporosis is a chronic disease which afflicts sufferers over many decades, during which 'acute exacerbations' will come to clinical attention in the form of fragility fractures³⁴. As such, General Practitioners are crucial to delivery of long-term management plans to reduce fracture risk. GPs have transformed the secondary preventive care of patients experiencing myocardial infarctions, and are equally well placed to do the same for patients with fragility fractures.

In localities lacking Fracture Liaison Services, the majority of patients that have suffered fragility fractures in the past will not have received secondary preventive care. GPs in Australia^{32, 145} and the UK^{146, 147} have participated in large scale programs to evaluate osteoporosis assessment and treatment rates for patients with a history of fragility fracture. Alarming low rates were identified by both groups; however, one UK group transformed the quality of care¹⁴⁶. The new service model was delivered by a team comprised primarily of an osteoporosis nurse specialist reporting to a general practitioner with a specialist interest in osteoporosis. Prior to implementation of the programme, 9% of fragility fracture patients were managed according to national guidelines, which increased to 64% afterwards.

In March 2012, the journal of the Royal Australian College of General Practitioners, Australian Family Physician, was devoted to bone related matters and osteoporosis in particular. An editorial comment highlighted the ubiquitous nature of the secondary fracture prevention care gap¹⁴⁸:

'An area of clarity around what we should do is secondary prevention after the first fracture, but here reality is often not the ideal. In part it is systems issues, in part human. Even if osteoporosis is detected and treated, there are very high rates of discontinuation of treatment - two-thirds discontinue treatment within 12 months.'

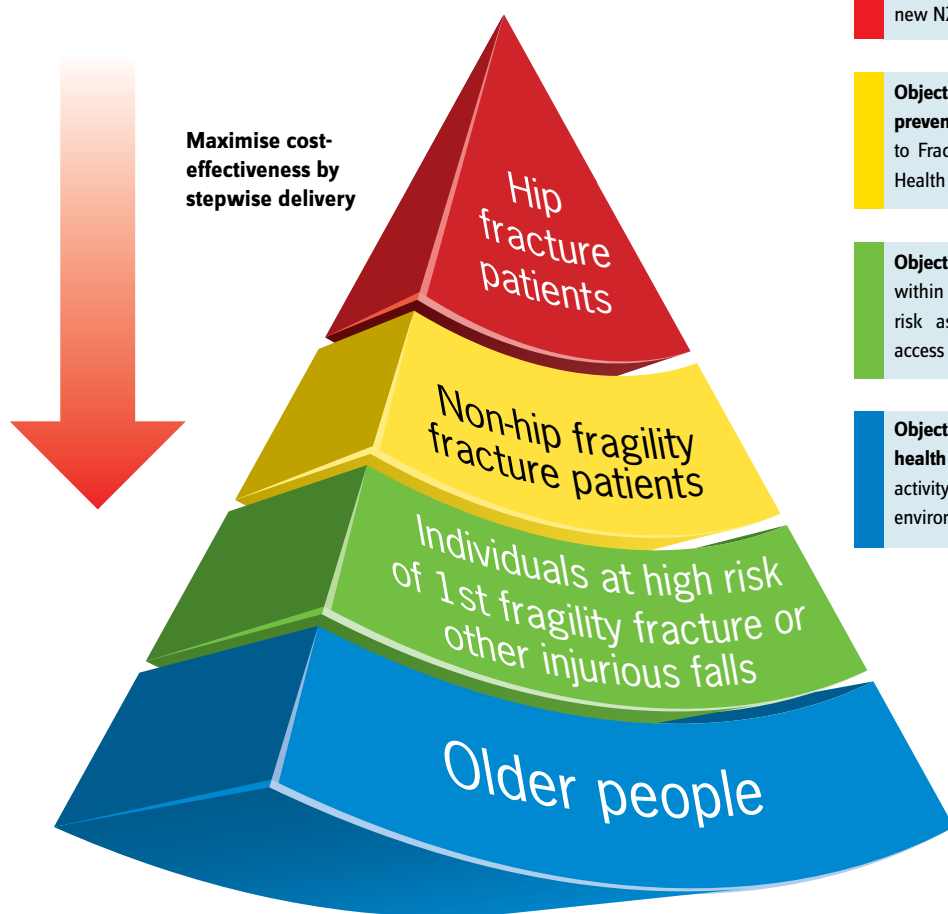
'While drug related side effects and dosing regimens might be addressed, I suggest there must be a more fundamental problem with the value our health system believes treatment offers and the value that the individual recipient believes it offers them.'

In response to this, colleagues from Osteoporosis Australia and the Royal College of General Practitioners in the UK shared experience of new measures to improve secondary fracture prevention in UK general practice¹⁴⁹. From 1st April 2012, a component of UK GPs' performance-related pay will be dependent upon creation of fragility fracture registries in GP practices and demonstration that patients are being treated for osteoporosis in accordance with national guidelines¹⁵⁰. To support UK GPs to deliver these new standards of care, the Royal College of General Practitioners and the UK National Osteoporosis Society developed a web-based resource - <http://www.osteoporosis-resources.org.uk/>. Osteoporosis New Zealand intends to explore opportunities for similar collaborative ventures with the Royal New Zealand College of General Practitioners.

Bone Care 2020: A strategy to improve quality and reduce costs

The strategy for implementation of a systematic approach to hip fracture care and prevention in New Zealand is depicted in the 'pyramid' in figure 4. High quality care of hip fracture patients is less expensive than the alternative³⁴. In England, the Department of Health has recognised this by introduction of a financial incentive linked to delivery of professionally agreed standards of care^{151, 152}. The initial interest in the ANZ Hip Fracture Registry initiative suggests a similar appetite for change exists in New Zealand⁴⁷, with all relevant stakeholder organisations keen to endorse development of a National Hip Fracture Registry. Osteoporosis New Zealand is committed to work with all stakeholders to develop this tool that will enable benchmarking of care across the country.

Figure 4. A systematic approach to hip fracture care and prevention for New Zealand for 2012-2020



Objective 1: Improve outcomes and quality of care after hip fractures by delivering ANZ professional standards of care monitored by a new NZ National Hip Fracture Registry

Objective 2: Respond to the first fracture to prevent the second through universal access to Fracture Liaison Services in every District Health Board in New Zealand

Objective 3: GPs to stratify fracture risk within their practice population using fracture risk assessment tools supported by local access to axial bone densitometry

Objective 4: Consistent delivery of public health messages on preserving physical activity, healthy lifestyles and reducing environmental hazards

Secondary fracture prevention provides a major opportunity to rapidly reduce the incidence of hip fractures in New Zealand.

In order to close current and historical care gaps in the provision of post-fracture care, during the period 2012 - 2015 we need:

- A **Fracture Liaison Service** in every hospital/DHB to case find all new fragility fracture patients
- A systematic approach to case-finding the last 5 years' fracture patients in every GP practice in NZ
- To drive public awareness that **fracture begets fracture** and that effective, safe treatments to prevent fractures are available as daily or weekly pills, or daily or annual injections

In order to establish this new national standard of care for fragility fracture prevention:

- **Osteoporosis New Zealand invites all relevant professional organisations, policy groups and private sector partners to join a National Fragility Fracture Alliance to develop and implement this strategy for all older New Zealanders**
- **Osteoporosis New Zealand invites the Ministry of Health to work collaboratively towards new Ministerial Targets for hip fracture care and prevention**
- **Osteoporosis New Zealand invites the Royal New Zealand College of General Practitioners to collaboratively develop clinically and cost-effective programs for primary fracture prevention**

During the period 2012-2015, the focus of efforts to implement the national strategy will be upon secondary fracture prevention. Closure of the current care gap is achievable nationwide by 2015. The focus of the period 2016-2020 will be to systematically identify patients at high risk of suffering their first fragility fracture in general, and hip fracture in particular, in a cost-effective way.

Comprehensive implementation of a secondary fracture prevention strategy has the potential to reduce the incidence of hip fracture by 20-25% versus the expected rate¹⁵³. That would equate to up to 1,000 older New Zealanders every year avoiding a hip fracture, with a potential cost reduction of NZ\$20 million per year¹. Additional savings will be accrued by prevention of fragility fractures at other skeletal sites. Subsequent implementation of structured primary prevention programmes could result in up to 50% of fractures being prevented^{135, 141}. Given that half of hip fracture patients give us advance notice that they will break their hip in the future, older people and the country are currently paying far too high a price for the status quo to persist.

'Whether at the level of a local general hospital or a national healthcare system, successful transformation of care relies upon consensus being achieved amongst all the players in the multi-disciplinary team who care for fracture patients.

As many millions of patients present to hospitals worldwide with fragility fractures every year, the opportunity to improve outcomes is too good to miss.'¹³⁵

About Osteoporosis New Zealand

Osteoporosis New Zealand is the only national organisation in New Zealand dedicated to improving care and outcomes for osteoporosis sufferers. The focus of Osteoporosis New Zealand activities for the period 2012-2015 is upon closing the current care gap for patients that have suffered fragility fractures. In October 2012, Osteoporosis New Zealand published ***Bone Care 2020: A systematic approach to hip fracture care and prevention for New Zealand***. We invite all relevant professional organisations, policy groups and private sector partners to join a National Fragility Fracture Alliance to implement this strategy for all older New Zealanders.

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