



Fracture Alliance

Making the first break the last

Strategic Plan 2017-2019

I. Introduction

Osteoporosis is a chronic disease that leads to weakening of bones, which can ultimately break even after minimal trauma ('minimal trauma' or 'fragility' fractures). Australia's burden of fractures in people with osteoporosis and osteopaenia¹ is high and costly. In 2012 there were an estimated 4.75 million people with low bone mineral density (BMD) and about 140,000 fractures occurred among them that year (395 per day or one every 3.6 minutes). The direct cost of these fractures was \$1.75 billion, including ambulance services, hospitalisations, emergency and outpatient services, rehabilitation, aged care and community services. If nothing happens, Australia will spend \$22.7 billion over the next 10 years on fractures due mainly to osteoporosis.

In this document, a *secondary fracture* is defined as any fracture that occurs after a *first fragility fracture*, which we call a *sentinel fracture*.

Hip fractures are the most serious and costly fragility fractures. About a half of older people who suffer a hip fracture had a preceding fragility fracture that could have been the sentinel fracture. This first fracture could have prompted action to prevent the secondary hip fracture. However, the vast majority (~80%) of Australians who experience a fragility fracture are neither investigated nor receive appropriate treatment following this sentinel event. As a consequence of this gap in post-fracture care, many of these men and women suffer further fractures, which lead to significant illness and premature death

This care gap exists in the face of widely accessible and highly efficacious management strategies to maintain bone strength and prevent falls. It exists despite repeated calls for action. Although osteoporosis became part of the 7th National Health Priority Area in 2002, little progress has been made in the prevention of fragility fractures.

Secondary fracture prevention programs aim to identify people with sentinel fractures, investigate whether those fractures are due to osteoporosis or osteopaenia and, if they are, initiate a plan of management that entails lifestyle changes and medical therapies aimed at stopping or reversing bone mineral loss and reducing the risk of fractures. Many older patients are, as a result, also referred to falls prevention programs. Ongoing follow-up of patients found to need treatment is necessary to ensure optimal continuing care.

Present Australian secondary fracture prevention programs generally operate at a hospital level. They identify and act on about 25% of all patients with sentinel fractures. Overseas experience indicates that this proportion can be increased to over 90%.

¹ Bone health can be assessed by measuring bone mineral density (BMD) at the spine and hip. We talk about 'osteoporosis' when the BMD is severely reduced, reflecting a very high risk of fracture. The term 'osteopaenia' means that BMD is diminished but not as much to qualify for a diagnosis of 'osteoporosis'



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II. The SOS Fracture Alliance

Background

In a meeting held in Sydney on 20 November 2015, a large number of key stake holders came together to consider forming a National Alliance to promote the prevention of secondary fractures (<https://www.sosfracturealliance.org.au/documents>). As a result of this forum, the Australian National Secondary Fracture Alliance (or 'SOS Fracture Alliance) was founded in October 2016, bringing together health professional and community organisations from diverse backgrounds (www.sosfracturealliance.org.au). Currently the Alliance has 31 member organisations which collectively have more than 2.9 million individual members.

The aim of the Alliance is to translate the evidence for the effectiveness of existing strategies for secondary fracture prevention into tangible health benefits, i.e. the development of an approach or approaches applicable to the Australian health system. The members of the Alliance are convinced that working together will deliver consistent and targeted messages, and that focussing multiple organisations in one united voice is most likely to lead to change.

Our Vision:

All Australian patients with fragility fractures receive preventative care that reduces needless suffering, disability and death from subsequent fractures.

Our Values:

Prevent suffering – Our primary concern is for the suffering and loss of those affected by osteoporosis-related fractures.

Respect expertise – Our advice and actions will be based on evidence of how best to organize and deliver secondary fracture prevention services.

Collaborate – We will work in close collaboration with all relevant stakeholders, including patients and their carers, medical and allied health professionals, government and non-government organizations and the wider community to obtain the best secondary fracture prevention outcomes.

Our Mission:

To bring about change whereby all Australian patients who experience a sentinel fracture are offered and can access an effective secondary fracture prevention program.

Our Goal:

The *SOS Fracture Alliance* aims to be the lead organisation to advocate for change at all levels of health services and see implemented Australia-wide, best practice secondary fracture prevention programs available to all patients with sentinel fractures.



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These policies and programs will involve a shift from current common practice, which is focused principally on acute fracture repair, to engagement with a multi-disciplinary team in a dedicated secondary fracture prevention program. A multidisciplinary approach is required to prevent the falls that precipitate many fragility fractures, identify sentinel fractures early and with high probability, and implement the most appropriate interventions to prevent subsequent fractures.

We aim to advocate for the delivery of coordinated services whereby this organised, multi-disciplinary approach functions seamlessly across primary, secondary and tertiary health services. Secondary fracture prevention delivered through well organised programs is the crux of our strategy and, importantly, has been shown to reduce the risk of refracture by up to 80%. The outcome of secondary fracture prevention has been an important reduction in fracture incidence and associated costs.

III. Strategic directions and actions to achieve them

Strategic Direction 1: Undertake the research and establish the body of evidence for the development of an SFPP model or models most appropriate for use in the Australian health care context.

Specific strategic actions to achieve this Direction:

1. Secondary fracture prevention model development project

The Alliance has initiated a 6-9 month program development project, which is being conducted by the Sax Institute (www.saxinstitute.org.au). This project will *determine the feasibility of designing, evaluating and translating into practice an Australian secondary osteoporotic fracture prevention program (SFPP) that has the:*

- *capacity to systematically identify, investigate and initiate management to prevent future fractures in people with osteoporosis who experience, or have experienced, a sentinel fracture, and*
- *potential to engage quickly with more than 80% of all such people.*

While there are some twenty secondary fracture prevention programs operating in Australia, none ascertains and intervenes on a high proportion of sentinel fractures occurring in the population it serves. This is mainly because these programs depend on patients presenting to hospitals for the diagnosis and care of their sentinel fractures. As a result, this approach cannot ascertain all of the sentinel fractures occurring in the served population, missing the majority of spinal fractures and a proportion of wrist and minor osteoporotic fractures. The most common osteoporotic fractures, vertebral (spine) fractures, are often asymptomatic and therefore not recognised clinically (although featuring in x-ray reports). In addition, there is widely variable practice in the reporting of these fractures which hampers the identification of patients at risk of secondary fractures. Whilst we acknowledge that good practice exists in many places, there is need for a broader approach to secondary fracture prevention.



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Moreover, if secondary fracture prevention programs were to ascertain 80% or more of sentinel fractures, the specialist workforce that now investigates and initiates preventive care for patients with sentinel fractures would be unable to manage the load. Thus it is likely that substantial engagement of general practitioners will be required if these programs are to successfully address the need.

The *Secondary Fracture Prevention Models development project* will:

- a. Survey in detail all present secondary fracture prevention programs (SFPPs) in Australia and, from the information obtained, determine what model or models are currently the most effective and efficient in secondary fracture prevention in terms of their program design and operation. The Alliance acknowledges that the approach to secondary fracture prevention may differ between hospitals, GPs and private specialists with further differences between rural and metropolitan settings. Therefore the model or models will need to be adaptable to the wide range of health services in Australia.
- b. Analyse by way of the above survey and by direct contact with primary healthcare experts and Australian Primary Health Networks (local organisations that support and coordinate the efforts of general practitioners) what contribution general practitioners and other primary health care workers currently make to secondary fracture prevention programs. We will seek to document and understand the contribution of primary care services, their capacity to engage in secondary fracture prevention and the challenges they face in doing so.
- c. Examine whether or not existing healthcare IT systems are able to provide timely and inexpensive identification of sentinel fractures and notify them to a relevant secondary fracture prevention program so that the affected patients can be offered its services.
- d. Taking account also of learning from the *Primary health care engagement projects* (see below) Identify two or three secondary fracture prevention programs that could be developed as best-practice models of fully coordinated secondary fracture prevention in Australia and their performance assessed.

2. Primary health care engagement projects

While the *Secondary fracture prevention model development project* is in progress, a number of other projects will be carried out to facilitate engagement of primary healthcare in secondary fracture prevention. Whilst this work focuses in on secondary prevention in all health sectors, we acknowledge that secondary fracture prevention co-exists in an environment of primary prevention via the ongoing effective management of patient risk factors by GPs.



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We will undertake *Primary health care engagement projects* in collaboration with interested primary health networks, local health districts and general practitioners, exploring in them the feasibility and value of engaging primary care practices and practitioners in secondary fracture prevention. These projects will include at least the following.

- a. Qualitative research into GPs' practice and attitudes regarding all aspects of a coordinated SFPP. This will begin with conduct of one or more GP focus groups in a collaboration between the Sydney Local Health District (SLHD) and the Sydney Central and Eastern Primary Health Network (CESPHN).
- b. Subject to the outcome of this first part, pilot studies will be initiated to assess the feasibility and costs of engaging GPs in:
 - identifying patients with sentinel fractures managed in their practices and
 - initiating and coordinating the secondary fracture preventive care of these patients.Such studies may include working directly with one or more interested general practices to implement these processes in collaboration with secondary fracture prevention services operating in their area.
- c. A study of the feasibility of using electronic records of hospital and private radiology services to enable early identification of patients with relevant fractures and their referral to a secondary fracture prevention service directly or by way of their GP. This is a collaboration between SLHD, CESPHN and public and private sector radiology service providers.

Strategic Direction 2: Use the outputs from Strategic Direction 1 to develop one or several SFPP models that are likely to perform well and are appropriate for use in the Australian context.

Specific strategic actions to achieve this Direction:

Develop SFPP models

Undertake a thorough review of existing Australian models of care using information gained from following Strategic Direction 1. Using the results of this review and informed by comparable international experience propose one or several SFPP models for use in Australia. Agree upon the objective criteria by which each model's effectiveness and cost-effectiveness should be measured.

Strategic Direction 3: Evaluate the effectiveness and cost-effectiveness of the proposed SFPP model(s) in collaboration with existing Australian SFPPs already operating or able to operate in a similar way to identify and specify the best-functioning model or models.



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Specific strategic actions to achieve this Direction:

1. Pilot projects of SFPP models

In collaboration with 2-3 presently well-functioning SFPPs, preferably in different States or Territories, undertake pilot projects to evaluate the effectiveness and cost-effectiveness (cost-benefit) of SFPPs operating as specified in the models.

2. Design of proposed national SFPP

On the basis of the models evaluated in (1) above, design and specify a best practice model or models for implementation nationwide, whilst acknowledging that design variation across States may be needed to address State-based variation in health services structure and function. In doing so, work as widely as possible with relevant experts in all States and Territories so as to maximise ultimate “buy in” by all jurisdictions.

Strategic Direction 4: Advocate for and support the implementation of the advocated SFPP model or models across Australia via Commonwealth, State and Territory mandate.

Specific strategies to achieve this Direction:

1. Lobby for Commonwealth, State and Territory funding

To gain the full cooperation of State and Territory Health Departments, achieve listing and, ultimately, support of the proposed national SFPP on the Australian Health Ministers Advisory Council’s agenda. With that support, gain the support of Australian Health Ministers through the Health Council of the Council of Australian Governments (COAG).

In parallel, achieve media and public interest to advocate for the national SFPP.

2. Support development and roll out of a national SFPP implementation plan

Support State and Territory health officials to develop and implement a national implementation plan across Primary, Secondary and Tertiary care environments. Assist in the development of annual KPIs by which to measure effectiveness and efficiency of the program and ultimately fully evaluate, document and advocate the program’s achievements.

IV. **Benefits**

Delivery of the SOS Fracture Alliance’s strategy as outlined above will improve the quality and consistency of care for people suffering from osteoporosis and prevent falls and fractures in these high risk people. This improvement in patient management will yield significant reductions in the cost of fragility fractures, particularly hip fractures. The benefits of delivering our strategy include but are not limited to:

- Greatly improved management of patients with sentinel fractures

