NSW Health

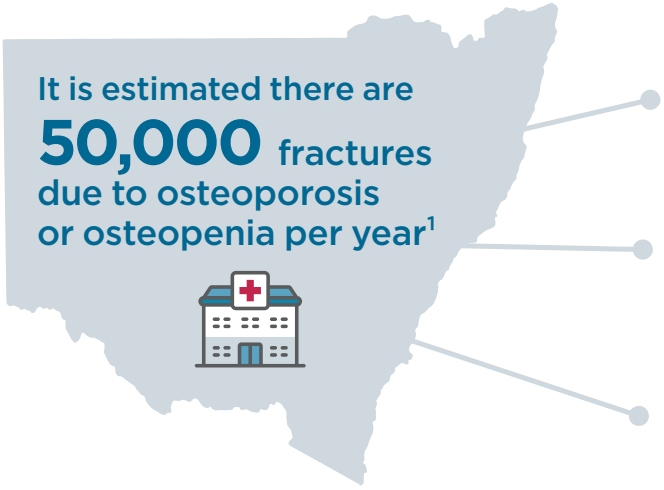
Leading Better Value Care

Osteoporotic refracture prevention

Clinical priorities

Osteoporosis is a chronic disease characterised by reduced bone density and strength. It is associated with a heightened vulnerability to minimal trauma fractures (or fragility fractures). People who have had a minimal trauma fracture are at high risk of refracture.

The *NSW Model of care for osteoporotic refracture prevention* outlines evidence-based care for identifying and managing minimal trauma fractures.



It is estimated there are **50,000** fractures due to osteoporosis or osteopenia per year[1]

People who have had a fragility fracture...

are at 2–3 times higher risk of refracture[2]

26% of them will sustain another minimal trauma fracture within 10 years[2]

and the annual cost is **$740 million**[1]

This simplified summary highlights four clinical priority areas to reduce the risk of refracture.

IDENTIFICATION AND TRIAGE

Screen people aged 50+ who have minimal trauma fracture/s in acute, outpatient, community and primary care settings for heightened risk.

TREATMENT INITIATION

Timely access to evidence-based treatment is tailored to and chosen with the patient.

ASSESSMENT AND DIAGNOSIS

A coordinator-based model of care improves early diagnosis and access to appropriate services for whole-of-person care.

COORDINATION OF ONGOING CARE

Support patients to adhere to agreed treatments and interventions and to maintain long-term lifestyle and behaviour changes.

CLINICAL OUTCOMES

- ✓ Improved identification of those requiring refracture prevention services
- ✓ Improved uptake of medication, exercise and calcium intake
- ✓ Fewer preventable fractures
- ✓ Better quality of life

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The goal of the Leading Better Value Care osteoporotic refracture prevention service is to identify people who have sustained a minimal trauma fracture and coordinate management of their bone health. This will reduce the risk of a refracture and improve their overall health, wellbeing and quality of life. Refer to *ORP site manual* for a implementation guide against the model of care, including key features and supplementary tools and resources.

Identification and triage

People aged 50+ years with fractures related to osteoporosis should be proactively identified by a designated staff member.

- An active search should be conducted for patients with minimal trauma fractures receiving care in emergency departments, inpatient wards, outpatient clinics and community or primary care settings.
- All imaging involving the spine should be screened by radiology for vertebral compression fractures.

Assessment and diagnosis

Within 16 weeks of a fracture, the patient should receive a thorough, person-centred assessment coordinated by a dedicated clinician. This includes:

- assessment of bone health, consisting of bone mineral density testing (DEXA, QCT) and serum vitamin D
- screening for and assessment of falls risk, using validated tools such as FROP-COM, Berg Balance Scale, Timed Up and Go and repeated sit to stand.
- assessment of future fracture risk using FRAX or Garvan tools
- assessment of medical status, including physical function, comorbidities and mental health
- a diagnosis of osteoporosis or osteopenia by a medical officer where indicated.

Treatment initiation

Access should be coordinated for timely, evidence-based and individualised treatment that is recorded in a personalised management plan. This includes:

- provision of osteoporosis education and self-management support
- initiation of appropriate medical interventions inclusive of bone-sparing medications and supplementary treatments
- prescription of resistance exercise or physical activity
- dietary advice on calcium and protein intake
- coordination of falls prevention interventions
- facilitation of comorbidity management.

Coordination of ongoing care

Patients should be supported to ensure continued treatment, intervention and behaviour change. This should involve community services and their general practitioner. This includes:

- review of progress within six months of intervention with review and modification of management plan
- self-management support to recognise progress and address issues
- a plan for transition to appropriate ongoing community-based care.

Evidence

1. Sanders KM, Watts JJ, Abimanyi-Ochom J, et al. Osteoporosis Costing NSW & ACT: A Burden of Disease Analysis – 2012 to 2022. Sydney: Osteoporosis Australia 2017.

2. Center JR, Bliuc D, Nguyen TV, et al. Risk of Subsequent Fracture after Low-trauma Fracture in Men and Women. JAMA. 2007;297(4):387-94.

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