

# NZ FRAGILITY FRACTURE REGISTRY - PATIENT LEVEL AUDIT

Facility Name: \_\_\_\_\_



*Headings in italics* //

*Heading\**

These boxes relate to KPIs of the FLS Clinical Standards \* These boxes are required to save a record

## PATIENT DEMOGRAPHICS

First Name	Last Name	National Health Index*
Date of birth (dd/mm/yyyy)	Sex	NZ Ethnic Status
__ / __ / ____	<input type="checkbox"/> Male <input type="checkbox"/> Intersex or indeterminate <input type="checkbox"/> Female <input type="checkbox"/> Not stated/inadequately described	<input type="checkbox"/> New Zealand European <input type="checkbox"/> Niuean <input type="checkbox"/> Māori <input type="checkbox"/> Chinese <input type="checkbox"/> Cook Island Māori <input type="checkbox"/> Indian <input type="checkbox"/> Samoan <input type="checkbox"/> Not elsewhere included <input type="checkbox"/> Tongan <input type="checkbox"/> Other
Contact Phone Number	Post Code	
Email		
Patients GP		
<input type="checkbox"/> Registered <input type="checkbox"/> Unregistered <input type="checkbox"/> Unknown GP Practice: _____		

## IDENTIFICATION

Index Fracture Date*	Index Type of Fracture	Admission to Hospital
__ / __ / ____	<input type="checkbox"/> Fragility <input type="checkbox"/> Atypical	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Already an inpatient <input type="checkbox"/> Not known
Fracture Sites (1 = index fracture. Mark as numbers, up to 3 fractures) //		
<input type="checkbox"/> Wrist <input type="checkbox"/> Proximal humerus <input type="checkbox"/> Hip <input type="checkbox"/> Thoraco-lumbar spine <input type="checkbox"/> Clinical acute <input type="checkbox"/> Asymptomatic or non-acute	<input type="checkbox"/> Sacrum and pelvis <input type="checkbox"/> Other humerus <input type="checkbox"/> Elbow <input type="checkbox"/> Forearm other than wrist <input type="checkbox"/> Sternum, ribs, clavicle, and scapula	<input type="checkbox"/> Other femur including supracondylar knee <input type="checkbox"/> Tibial plateau and patella <input type="checkbox"/> Other lower leg and ankle
Pre-fracture Residence	Pre-fracture Mobility	Pre-fracture Cognitive Status
<input type="checkbox"/> Private residence (including unit in retirement village) <input type="checkbox"/> Residential aged care facility <input type="checkbox"/> Other <input type="checkbox"/> Not known	<input type="checkbox"/> Usually walks without walking aids <input type="checkbox"/> Usually walks with either a stick or crutch <input type="checkbox"/> Usually walks with two aids or frame (with or without assistance of a person) <input type="checkbox"/> Usually uses a wheelchair / bed bound <input type="checkbox"/> Not known	<input type="checkbox"/> Normal cognition <input type="checkbox"/> Impaired cognition or known dementia <input type="checkbox"/> Not known
		Appropriate for Further Assessment
		<input type="checkbox"/> Yes <input type="checkbox"/> No
Method of Identification		Reason Not Appropriate for Further Assessment
<input type="checkbox"/> Emergency Department trauma list <input type="checkbox"/> Inpatient diagnosis list (filtered for fracture) <input type="checkbox"/> Fracture clinic list <input type="checkbox"/> Internal hospital referral <input type="checkbox"/> GP referral <input type="checkbox"/> External FLS to FLS <input type="checkbox"/> Out of area referral <input type="checkbox"/> ACC fracture claims <input type="checkbox"/> Discharge coding <input type="checkbox"/> Radiology reports for any fracture <input type="checkbox"/> Radiology other <input type="checkbox"/> Radiology reports for vertebral fractures ("wedge, compression etc")		<input type="checkbox"/> Deceased <input type="checkbox"/> Terminal illness / palliative care <input type="checkbox"/> Frail - life expectancy of less than a year /advanced dementia <input type="checkbox"/> End stage renal failure <input type="checkbox"/> Advanced malignancy # not due to metastasis <input type="checkbox"/> Usual residence not in New Zealand or Australia <input type="checkbox"/> Other <input type="checkbox"/> Under care of other specialist service <input type="checkbox"/> Non-contactable <input type="checkbox"/> Declined FLS <input type="checkbox"/> Opt-out Date of decision __ / __ / ____

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INVESTIGATION - BONE HEALTH ASSESSMENT		
Bone Health Assessment Date //	Reported Previous Fragility Fractures	Parental history of hip fracture
__ / __ / ____	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 or more <input type="checkbox"/> Not known	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not done
Early Menopause	Current Smoker	Glucocorticoids
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not done	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not done	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not done
Rheumatoid Arthritis	Alcohol Use	Previous Significant Osteoporosis Specific Treatment
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not done	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not done	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not done
Current Osteoporosis Specific Treatment		Secondary Cause Review
<input type="checkbox"/> None at time of index fracture <input type="checkbox"/> None: planned "drug holiday" <input type="checkbox"/> Alendronate <input type="checkbox"/> Risedronate <input type="checkbox"/> Etidronate <input type="checkbox"/> Zoledronate <input type="checkbox"/> Denosumab		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not done <b>Secondary Cause Blood Tests</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not clinically indicated <input type="checkbox"/> Referred to another clinical team (including GP) <input type="checkbox"/> Yes, at least one result reported as abnormal
Thoraco-Lumbar Imaging	Thoraco-Lumbar Imaging date	Creatinine Clearance (Cockcroft Gault)
<input type="checkbox"/> Fracture identified <input type="checkbox"/> No fracture identified <input type="checkbox"/> No imaging of thoraco-lumbar spine performed or report not available <input type="checkbox"/> Not known	__ / __ / ____	__ __ ml/min
Patient Weight	Patient Height	Body Mass Index
__ __ kg	__ __ cm	__ . __
FRAX Score	Garvan Score	
__ %	__ %	

INVESTIGATION - FALLS RISK ASSESSMENT AND REFERRALS		
Falls Risk Assessment Date //	What happened?	
__ / __ / ____		
2+ Slips, Trips, Falls in Previous 12 months	Potential Cardiac Cause	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not known	<input type="checkbox"/> Can't remember landing on floor / woke up on floor <input type="checkbox"/> Loss of consciousness / fainted <input type="checkbox"/> Prodromal symptoms associated with postural change (dizziness, light headedness, nausea, diaphoresis, palpitations, chest pain)	
Fear of Falling	<input type="checkbox"/> No symptoms <input type="checkbox"/> Not known <input type="checkbox"/> Not assessed	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not known		
Pre-fracture Strength	Strength and Balance Referrals	
Standing from chair without using hands	<input type="checkbox"/> Already attending a recognised strength and balance programme <input type="checkbox"/> Already engaged in a self-directed exercise programme <input type="checkbox"/> Referred to a community strength and balance programme <input type="checkbox"/> Referred to an in-home strength and balance programme	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not known	<input type="checkbox"/> Referred to the "Training for Independence" programme <input type="checkbox"/> No referral made or not appropriate for a strength and balance training programme <input type="checkbox"/> Patient declined Nymbl information provided <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not known	
Strength and Balance Referral Date		
__ / __ / ____		

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## DXA

### DXA Ordered or Not

- ☐ Ordered  
 ☐ Declined  
 ☐ Ordered - did not attend  
 ☐ Done in last 24 months and not being repeated at this time  
 ☐ Not appropriate  
 ☐ Not available  
 ☐ Ordered by GP/Specialist  
 ☐ Ordered and self-funded by patient  
 ☐ Ordered elsewhere - not known

Previous DXA Date	Previous DXA Spine T-score	Previous DXA Hip T-score	Previous DXA Wrist T-Score	
__/__/__	+/- . __	+/- . __	+/- . __	
Date DXA Ordered	DXA Date	DXA Spine T-score	DXA Hip T-score	DXA Wrist T-score
__/__/__	__/__/__	+/- . __	+/- . __	+/- . __

## INTERVENTION

### Osteoporosis Specific Treatment Recommendation

- |  |  |
|--|--|
| <input type="checkbox"/> Not clinically indicated                    | <input type="checkbox"/> Denosumab                         |
| <input type="checkbox"/> Recommended but declined                    | <input type="checkbox"/> Teriparatide                      |
| <input type="checkbox"/> Referred to specialist                      | <input type="checkbox"/> Testosterone                      |
| <input type="checkbox"/> Continue current treatment                  | <input type="checkbox"/> Systemic Oestrogens               |
| <input type="checkbox"/> Continue current planned drug holiday       | <input type="checkbox"/> Systemic Oestrogen & Progesterone |
| <input type="checkbox"/> Bisphosphonate therapy (prescribers choice) | <input type="checkbox"/> Romosozumab                       |
| <input type="checkbox"/> Alendronate                                 | <input type="checkbox"/> Raloxifene                        |
| <input type="checkbox"/> Risedronate                                 | <input type="checkbox"/> Bone marker testing (P1NP/CTX)    |
| <input type="checkbox"/> Zoledronate                                 | <input type="checkbox"/> Not known                         |

### Reason Treatment Not Recommended

- ☐ All assessments indicate treatment not required at present  
☐ Poor renal function  
☐ Poor swallowing, severe GORD, Barrett's oesophagus, achalasia  
☐ Advanced frailty, life expectancy of less than a year  
☐ Long term bisphosphonate treatment, so no further fracture risk benefit.  
☐ Treatment indicated, but no funded alternatives available within Pharmac (NZ) or PBS (Aust) criteria  
☐ Atypical femur fracture  
☐ History of Osteonecrosis of the Jaw or significant active dental disease or planned dental treatment  
☐ No obvious reason  
☐ DNA DXA - No further FLS engagement

Date of Osteoporosis Treatment Recommendation	Vitamin D (ARCF)	Long Term Plan
__/__/__	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not known	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not known
Long Term Plan Date	Information Package (Tick all that apply)	
__/__/__	<input type="checkbox"/> Yes – Standard package <input type="checkbox"/> Yes – Know Your Bones <input type="checkbox"/> No <input type="checkbox"/> Not known Date sent __/__/__	

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## 16 WEEK FOLLOW UP

Follow up //	Residence	Mobility
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Uncontactable <input type="checkbox"/> Declined <input type="checkbox"/> Patient died	<input type="checkbox"/> Private residence (including unit in retirement village) <input type="checkbox"/> Residential aged care facility <input type="checkbox"/> Rehabilitation unit public <input type="checkbox"/> Rehabilitation unit private <input type="checkbox"/> Other hospital / ward / specialty <input type="checkbox"/> Deceased <input type="checkbox"/> Short term care in residential care facility (New Zealand only) <input type="checkbox"/> Other <input type="checkbox"/> Not known	<input type="checkbox"/> Usually walks without walking aids <input type="checkbox"/> Usually walks with either a stick or crutch <input type="checkbox"/> Usually walks with two aids or frame (with or without assistance of a person) <input type="checkbox"/> Usually uses a wheelchair / bed bound <input type="checkbox"/> Not relevant <input type="checkbox"/> Not known
Follow up Date //		
__ / __ / __		
Medication Commenced		
<input type="checkbox"/> Yes, same as recommended <input type="checkbox"/> Yes, not same as recommended <input type="checkbox"/> No, not started in primary care at this time <input type="checkbox"/> No, now declined <input type="checkbox"/> Not known		
Medication Administered		
<input type="checkbox"/> As Inpatient <input type="checkbox"/> By primary care <input type="checkbox"/> By FLS team <input type="checkbox"/> Not started yet		
Strength and Balance Started		
<input type="checkbox"/> Yes, same as referred <input type="checkbox"/> Yes, not same as referred <input type="checkbox"/> No, not started yet <input type="checkbox"/> No, now declined <input type="checkbox"/> Not known		
	Medication //	
	<input type="checkbox"/> Recommended but declined <input type="checkbox"/> Awaiting specialist opinion <input type="checkbox"/> Clinical assessment not yet completed <input type="checkbox"/> Alendronate <input type="checkbox"/> Risedronate <input type="checkbox"/> Zoledronate <input type="checkbox"/> Denosumab <input type="checkbox"/> Teriparatide <input type="checkbox"/> Testosterone <input type="checkbox"/> Systemic Oestrogens <input type="checkbox"/> Systemic Oestrogen & Progesterone	<input type="checkbox"/> Romosozumab <input type="checkbox"/> Raloxifene <input type="checkbox"/> Awaiting bone marker testing (P1NP/CTX) <input type="checkbox"/> Not known

## 52 WEEK FOLLOW UP

Follow up //	Residence	Mobility
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Uncontactable <input type="checkbox"/> Declined <input type="checkbox"/> Patient died	<input type="checkbox"/> Private residence (including unit in retirement village) <input type="checkbox"/> Residential aged care facility <input type="checkbox"/> Other <input type="checkbox"/> Not done <input type="checkbox"/> Not known	<input type="checkbox"/> Usually walks without walking aids <input type="checkbox"/> Usually walks with either a stick or crutch <input type="checkbox"/> Usually walks with two aids or frame (with or without assistance of a person) <input type="checkbox"/> Usually uses a wheelchair / bed bound <input type="checkbox"/> Not done <input type="checkbox"/> Not known
Follow up Date //		
__ / __ / __		
Further Fragility Fractures	Medication //	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not asked <input type="checkbox"/> Not known	<input type="checkbox"/> Never started osteoporosis specific treatment <input type="checkbox"/> No longer taking osteoporosis specific treatment <input type="checkbox"/> Alendronate <input type="checkbox"/> Risedronate <input type="checkbox"/> Zoledronate	<input type="checkbox"/> Denosumab <input type="checkbox"/> Teriparatide <input type="checkbox"/> Testosterone <input type="checkbox"/> Systemic Oestrogens <input type="checkbox"/> Systemic Oestrogen & Progesterone <input type="checkbox"/> Romosozumab <input type="checkbox"/> Raloxifene
Further Falls		
<input type="checkbox"/> None <input type="checkbox"/> One <input type="checkbox"/> Two <input type="checkbox"/> Three or more <input type="checkbox"/> Not asked <input type="checkbox"/> Not known		
Strength and Balance	Reason for no medication	
<input type="checkbox"/> Yes, same as referred <input type="checkbox"/> Yes, not same as referred <input type="checkbox"/> No, now declined <input type="checkbox"/> No - course completed <input type="checkbox"/> Not known	<input type="checkbox"/> No longer appropriate (clinician) <input type="checkbox"/> Informed decline (patient) <input type="checkbox"/> Side effects <input type="checkbox"/> Cost to patient	<input type="checkbox"/> Not asked <input type="checkbox"/> No medications given - primary care not prescribed <input type="checkbox"/> Now on drug holiday <input type="checkbox"/> Not known