Highlands & Islands Osteoporosis Service, Ross Memorial Hospital, Dingwall

Bone Density (DXA) Referral Form

NHS Highland

Patient's Details		**GPs Details**
Name:		Name:
Address:		Address:
Tel:		Tel:
DOB:	OP Ward:	Email:
CHI:		Fax:
Hospital Number:		**Referring Consultant/GP:**

Signature of medical referrer \ authorised non medical referrer:	**Date**

1. Fragility Fracture/ Vertebral Fracture NICE SECONDARY PREVENTION

State Site:	**Date**

2. Primary Prevention **FRAX PRIMARY PREVENTION**

≥10% risk of major osteoporotic fracture on FRAX (**www.shef.ac.uk/FRAX**) or Qfracture (www.qfracture.org) if patient is suitable for osteoporosis therapy	major osteoporotic risk:	

The following clinical scenarios should prompt a FRAX / Qfracture assessment
Diabetes, asthma, rheumatoid arthritis (logical to apply to any inflammatory arthritis)
GI disease (Crohn's, Ulcerative Colitis, Coeliac), BMI <20
Chronic kidney disease (eGFR 30-60), chronic liver disease
Neurological disease (Alzheimer's, Parkinson's, stroke, multiple sclerosis), institutionalised patients with epilepsy
Primary hyperparathyroidism, untreated long-standing hyperthyroidism, hypogonadism, premature menopause (<45 years)
Parental hip fracture (also use same risk for any 1st degree relative or definite history of vertebral fractures),
Long term antidepressants, anti-epileptics or proton pump inhibitors, alcohol >3.5 units/d

3. Steroid Use: *Planned or treated with oral prednisolone for >3months treatment.*
If patients are >65 years and prednisolone then treat without a scan. If patients are on ≥20mg prednisolone and >50 years then start treatment with bisphosphonate (risedronate and alendronate) and refer for DXA.

Indication:	Intended duration of therapy:	Dose:

4. Non NICE guidance scans:

Indication	**Details**
Breast Cancer – anti-oestrogen therapy	
Other hormone antagonist (e.g. prostate cancer, depot contraceptive)	
Hyperparathyroidism – pre-surgical assessment	
Anorexia nervosa	
Other (please state):	

Official use only **Mar 2015 version**

LMP (12-55 years)	Date:	
Authorised by	Operator:	
Patient ID checked	Operator:	
Appointment NHS/Private	Date:	Time:

FRAX ASSESSMENT

We use FRAX assessment to determine whether patients require a scan and whether treatment is required based on an individuals absolute 10 year risk of major osteoporotic fracture. Some of the principles in the website http://www.shef.ac.uk/FRAX are used but we would suggest scanning patients with a fracture risk of 10% or above. There is no evidence that treating a patient at high risk with normal bone density is of value.

QFRACTURE ASSESSMENT

There are no head to head comparisons of Qfracture and FRAX, the algorithms of both are continually updated. It would seem reasonable to apply a similar threshold to each assessment tool of 10%. However common sense should apply – bone active therapies are of no value where the main pathology is low bone turnover – e.g eGFR <30ml/min. Life expectancy and ability to take therapies should be taken into account, remembering that denosumab is suitable for those that cannot comply with oral bisphosphonate regime. They will need to take regular calcium and vitamin D

We would only rarely recommend starting bisphosphonates without a DXA scan – patients unable to attend for DXA scan with low trauma fracture or steroid treated patients over 65 years.

REPEAT SCANS

Repeat scans are not justified except in very rare circumstances –e.g. younger patients where we have decided not to treat but to reassess risk at a later stage or treatment failure where there has been a documented drop in BMD.

INABILITY TO TOLERATE MEDICATION, LACK OF PERSISTENCE OR TREATMENT FAILURE.

We are only recommending treatment in high risk patients and therefore if they stop taking treatment then alternatives must be sought. In general oral alendronic acid, risedronate are the preferred therapies.
Please contact rheumatology department if oral therapies are not tolerated and parenteral therapies are required – this should be a genuine medical reason and not be a lifestyle choice.

Potential treatment failure is defined as a fracture despite at least 1 year of persistence with therapy. Patients should then be re-referred to rheumatology clinic for further investigations and selection of alternative medication.

Lifestyle advice:	Smoking cessation, alcohol intake, falls prevention, adequate dietary intake of calcium, exercise as per NOS website. (www.nos.org.uk)
Standard therapy:	Generic weekly alendronate 70mg or risedronate 35mg weekly Calcium 1000mg and Vitamin D 800 IU should also be co-prescribed with all therapies (even if patient has hyperparathyroidism but not sarcoid patients or those with malignancy related hypercalcaemia). This is given usually as 2 tablets at night but alternatively can be taken one tablet twice daily avoiding calcium in the morning that they take the bisphosphonates. It is available in chewable tablets, caplets and effervescent dissolvable tablets. Vitamin D may be an alternative for those intolerant of calcium– e.g Fultium D3
Other therapies:	Ibandronate 150mg monthly orally – may be useful where medication needs supervised or where monthly / daily regimes are not tolerated but evidence does not suggest protection against hip fractures. Denosumab – a biologic therapy SC injection twice per year – an alternative to IV bisphosphonates and substantially more cost effective than teriparatide. Need to make sure that patients are Vitamin D replete prior to administering. Please see information leaflet on denosumab on rheumatology intranet site. Intravenous zoledronate (annually) is an option where oral intake is not feasible and denosumab not practical. It is rarely used in NHS Highland because of long retention and concerns about over suppression of bone. Teriparatide – failure to tolerate oral therapy or treatment failure and Age> 65 years and T score ≤ -4 or T score ≤ -3.5 and multiple fracture Age> 55 years and T score ≤ -4 with multiple fractures.

The rheumatology department would be happy to advise in problematic cases.

Exclusion of secondary causes of fracture:	Clinical examination , myeloma screen, PSA, Calcium,
Exclusion of secondary causes of osteoporosis:	Clinical examination, TSH, Calcium, phosphate, LFTs, U+Es, LFTs, endomysial Ab, Testosterone/ SHBG/ FSH/ LH/ Oestrogen where indicated.