

Bone Protection Management in Post Fractured Neck of Femur (NOF) Patients Clinical Guideline

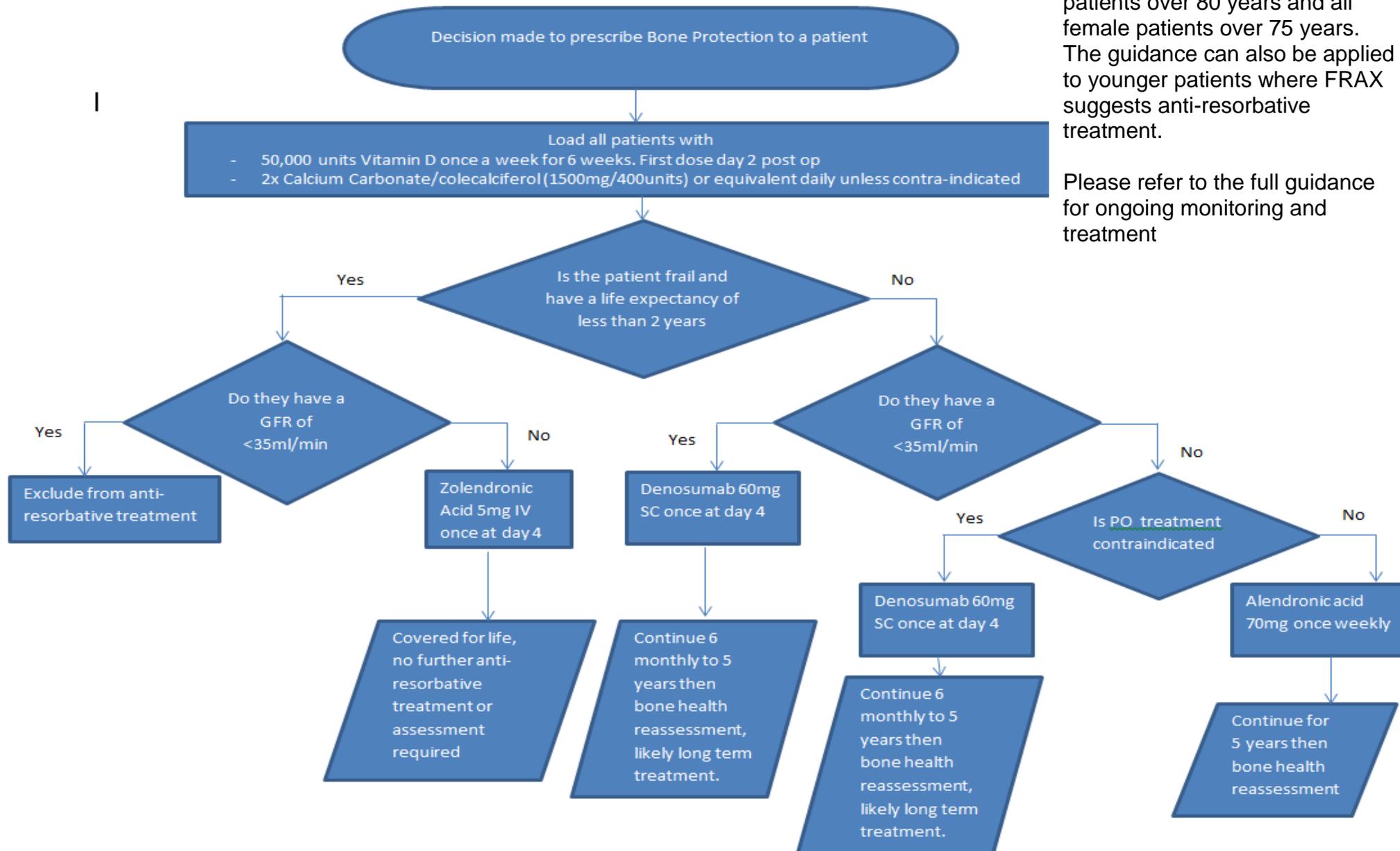
V1.0

September 2019

Summary

This guidance covers all male patients over 80 years and all female patients over 75 years. The guidance can also be applied to younger patients where FRAX suggests anti-resorptive treatment.

Please refer to the full guidance for ongoing monitoring and treatment



1. Aim/Purpose of this Guideline

1.1. The aim is to assist all prescribers in prescribing treatment for bone protection in patients post neck of femur fracture (#NOF).

1.2. This version supersedes any previous versions of this document.

1.3. Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation

The Trust has a duty under the DPA18 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed and documented. We can't rely on Opt out, it must be Opt in.

DPA18 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the DPA18 please see the 'information use framework policy', or contact the Information Governance Team rch-tr.infogov@nhs.net

2. The Guidance

2.1. Introduction

Osteoporosis is a disease characterised by low bone mass and structural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture. Osteoporosis leads to nearly 9 million fractures annually worldwide, and over 300,000 patients present with fragility fractures to hospitals in the UK each year.

Fragility fractures are fractures that result from mechanical forces that would not ordinarily result in fracture, known as low-level (or 'low energy') trauma. The World Health Organization (WHO) has quantified this as forces equivalent to a fall from a standing height or less. Reduced bone density is a major risk factor for fragility fracture. Other factors that may affect the risk of fragility fracture include the use of oral or systemic glucocorticoids, age, sex, previous fractures and family history of osteoporosis. Because of increased bone loss after the menopause in women, and age-related bone loss in both women and men, the prevalence of osteoporosis increases markedly with age, from 2% at 50 years to more than 25% at 80 years in women. As the longevity of the population increases, so will the incidence of osteoporosis and fragility fracture.

Osteoporotic fragility fractures can cause substantial pain and severe disability, often leading to a reduced quality of life, and hip and vertebral fractures are associated with decreased life expectancy. Hip fracture nearly always requires hospitalisation, is fatal in 20% of cases and permanently disables 50% of those affected; only 30% of patients fully recover. Projections suggest that, in the UK, hip fracture incidence will

rise from 70,000 per year in 2006 to 91,500 in 2015 and 101,000 in 2020.

There are a number of therapies and treatments available for the prevention of fragility fractures in people who are thought to be at risk, or to prevent further fractures in those who have already had one or more fragility fractures. However, identifying who will benefit from preventative treatment is imprecise. A number of risk assessment tools are available to predict fracture incidence over a period of time, and these may be used to aid decision-making. These tools are limited in that they may not include all risk factors, or may lack details of some risk factors. Two tools, FRAX and QFracture, are available for use in the UK. (Nice Guidance, CG146)

2.2. Prescribing bone protection post #NOF

2.2.1. This guidance covers all male patients over 80 years and all female patients over 75 years. The guidance can also be applied to younger patients where FRAX suggests anti-resorptive treatment.

2.2.2. Where possible GFR should be used to measure the patient's renal function.

2.2.3. Complete a visual check of the patient's teeth and confirm if a dental review is required before commencing treatment.

2.3. Vitamin D Loading:

- Check corrected calcium levels are within normal range before administering, check post op GFR or eGFR
- 50,000 units of colecalciferol once a week for 6 weeks, this should be started on day 2 post #NOF surgery
- 2 x Calcium Carbonate/colecalciferol (1500mg/400units) or equivalent daily unless contraindicated, ongoing treatment

2.4. Treatment:

- See above Flow chart

2.5. Follow up treatment

- Zoledronic acid:
 - Serum Calcium check 7-14 days post dose
 - Encourage regular dental review
- Denosumab:
 - Serum Calcium check 7-14 days post dose
 - Denosumab initiation letter (appendix 3) to be sent to GP by prescriber
 - Repeat dose in the community at 6 months, and every 6 months thereafter
 - Routine dental check ups
- Alendronic Acid
 - Routine dental check ups

3. Monitoring compliance and effectiveness

Element to be monitored	Adherence to the guideline for Bone Protection in Clinical Areas
Lead	Dr Simon McIntosh and Dr Julia Bell, Orthogeriatrician Consultants
Tool	National Hip Fracture Database (NHFD), records all bone protection prescribed. EPMA report to be run to follow up patients Patient documentation
Frequency	Reports on prescribing can be run quarterly, NHFD is updated quarterly.
Reporting arrangements	Reporting will occur in the Integrated Services for Older People Governance meetings
Acting on recommendations and Lead(s)	Orthogeriatrician's will undertake subsequent recommendations and action planning for any or all deficiencies and recommendations within reasonable timeframes for their areas
Change in practice and lessons to be shared	Lesson learned or changes to practice will be shared with all the relevant stakeholders

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the ['Equality, Inclusion & Human Rights Policy'](#) or the [Equality and Diversity website](#).

4.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.

Appendix 1. Governance Information

Document Title	Bone Protection Management in Post Fractured Neck of Femur (NOF) Patients Clinical Guideline V1.0		
Date Issued/Approved:	June 2019		
Date Valid From:	September 2019		
Date Valid To:	September 2022		
Directorate / Department responsible (author/owner):	Victoria Ling, Lead Pharmacist for Trauma and Orthopaedics		
Contact details:	01872 253531		
Brief summary of contents	Management of bone protection post fractured NOF patients		
Suggested Keywords:	Bone protection, NOF, alendronic acid, zolendronic acid, denosumab, colecalciferol		
Target Audience	RCHT ✓	CFT	KCCG
Executive Director responsible for Policy:	Medical Director		
Date revised:	June 2019		
This document replaces (exact title of previous version):	New Document		
Approval route (names of committees)/consultation:	Integrated Services for Older People Governance Medicines Practice Committee		
Care Group General Manager confirming approval processes	Richard Andrzejuk		
Name and Post Title of additional signatories	Not Required		
Name and Signature of Care Group/Directorate Governance Lead confirming approval by specialty and care group management meetings	{Original Copy Signed}		
	Name: Dr Neil Pollard		
Signature of Executive Director giving approval	{Original Copy Signed}		

Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet & Intranet	✓	Intranet Only	
Document Library Folder/Sub Folder	Clinical / Pharmacy			
Links to key external standards	None required			
Related Documents:	Nil			
Training Need Identified?	No			

Version Control Table

Date	Version No	Summary of Changes	Changes Made by (Name and Job Title)
June 2019	V1.0	Initial version	Victoria Ling Lead T&O Pharmacist

All or part of this document can be released under the Freedom of Information Act 2000

This document is to be retained for 10 years from the date of expiry.
This document is only valid on the day of printing

Controlled Document

This document has been created following the Royal Cornwall Hospitals NHS Trust Policy for the Development and Management of Knowledge, Procedural and Web Documents (The Policy on Policies). It should not be altered in any way without the express permission of the author or their Line Manager.

Appendix 2. Initial Equality Impact Assessment Form

<i>Name of the strategy / policy / proposal / service function to be assessed</i> Bone Protection Management in Post Fractured Neck of Femur (NOF) Patients Clinical Guideline V1.0						
Directorate and service area: Pharmacy			New or existing document: New			
Name of individual completing assessment: Victoria Ling			Telephone: 01872 253531			
1. <i>Policy Aim*</i> <i>Who is the strategy / policy / proposal / service function aimed at?</i>		To ensure consistent and appropriate prescribing of bone protection in those patients who have fractured their neck of femurs.				
2. <i>Policy Objectives*</i>		To ensure patients are appropriately loaded with Vitamin D To ensure patients receive appropriate bone protection post fracturing their neck of femur To prevent further deterioration to patients bone health post fractured neck of femur				
3. <i>Policy – intended Outcomes*</i>		To load all patients appropriately with vitamin D, in line with National Guidelines. To treat all patients appropriately with bone protection in line with National Guidelines To improve our compliance with bone protection in line with the national hip fracture database				
4. <i>*How will you measure the outcome?</i>		National Hip Fracture Database- our compliance will increase Annual audit				
5. <i>Who is intended to benefit from the policy?</i>		Patients who have fractured their Neck of Femur				
6a <i>Who did you consult with</i>		Workforce	Patients	Local groups	External organisations	Other
		x		x		
b). <i>Please identify the groups who have been consulted about this procedure.</i>		Please record specific names of groups Orthogeriatricians				

What was the outcome of the consultation?	Vitamin D loading and bone protection is widely recognised as best practice
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7. The Impact
Please complete the following table. **If you are unsure/don't know if there is a negative impact you need to repeat the consultation step.**

Are there concerns that the policy could have differential impact on:				
Equality Strands:	Yes	No	Unsure	Rationale for Assessment / Existing Evidence
Age		X		The assessments and processes described in this guidance are focused on the safe prescribing of medication to patients irrespective of whether they are members of any of the equality groups listed.
Sex (male, female, trans-gender / gender reassignment)		X		
Race / Ethnic communities /groups		X		
Disability - Learning disability, physical impairment, sensory impairment, mental health conditions and some long term health conditions.		X		
Religion / other beliefs		X		
Marriage and Civil partnership		X		
Pregnancy and maternity		X		
Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian		X		

You will need to continue to a full Equality Impact Assessment if the following have been highlighted:

- You have ticked “Yes” in any column above and
- No consultation or evidence of there being consultation- this excludes any *policies* which have been identified as not requiring consultation. **or**
- Major this relates to service redesign or development

8. Please indicate if a full equality analysis is recommended.		Yes		No	X
9. If you are not recommending a Full Impact assessment please explain why.					
Not indicated here					
Date of completion and submission	June 2019	Members approving screening assessment	Policy Review Group (PRG) APPROVED		

This EIA will not be uploaded to the Trust website without the approval of the Policy Review Group.

A summary of the results will be published on the Trust's web site.

Appendix 3: Denosumab Initiation letter. To be printed on headed paper

*The Orthogeriatric Team,
part of Older People Services
Royal Cornwall Hospital
Truro, Cornwall, TR1 3LJ
Tel: 01872 250000*

Dear Doctor,



Re: Denosumab (Prolia) 60mg s/c injections

Your patient has commenced the above treatment for osteoporosis after a hip fracture. It is a RANK-L inhibitor that is given every 6 months as a subcutaneous injection for up to 10 years.

The first dose has been given as an inpatient during their current stay. Denosumab is suitable for administration in a primary care setting. **We would therefore be grateful if you could kindly arrange to continue these 6 monthly injections at your practice, and the next dose is due**

_____.

The medication has been discussed with the patient and they have been provided with a patient information leaflet.

Periodic clinical monitoring of calcium levels is recommended after use of Denosumab in patients predisposed to hypocalcaemia, including those with severe renal impairment (eGFR <30ml/min).

Please do not hesitate to contact us if you require further information.

Yours Faithfully,

The Consultant Orthogeriatrician team