

South Central management of  
Anti-resorptive associated Atypical Femoral Subtrochanteric and Shaft fractures  
FRiSCY 2012  
version 1.6 (revision 10/13)

AIMS:

- 1) To optimize functional recovery of atypical fracture
- 2) To minimize the risk contralateral atypical fracture
- 3) To minimize the risk of other fragility fracture

Detection (see ASBMR taskforce guidance 2010 and FPS proforma):

At screens

1. Trauma team confirm: a) patient has been on bisphosphonates in last 12 months; b) presence of any uni lateral or bilateral thigh pain/ discomfort
2. Radiologist confirms fracture pattern is consistent with an atypical fracture

Principles of care of Fractured side:

>Femur is likely to be brittle and have thick cortex

- 1) Consider reaming
- 2) Use of a cephalo-medullary device is recommended to minimise the increased risk of secondary femoral neck fracture
- 3) Careful selection of entry point
- 4) Fully weight bear after surgery to reduce load on contralateral side

Principles of care of contralateral side:

- 1) Ascertain presence and severity of thigh pain on opposite side (0-10 pain on walking)
- 2) Urgent AP/ Lateral femur Xray & MR Cor T1 and FSTIR during current admission

Discontinue bisphosphonate, inform Orthogeriatricians / Osteoporosis service / Rheumatology / with name, NHS No and ward and topic = atypical subtroch fracture

Normal MRI

No symptoms +  
abnormal MRI

Symptoms + abnormal  
MRI

Reassure

Individual clinical decision principles:

- 1) Partial weight bearing with stick / crutch in opposite hand
- 2) Even if stop bisphosphonate, up to a one year off-effect
- 3) Risks of prophylactic nailing femur
- 4) Not enough evidence to risk stratify

Advise patient to represent to Trauma if new/ worsening symptoms

Review with Xray and/or MRI as clinically indicated

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Investigations  
Bone/ renal  
profile  
phosphate  
25(OH)D  
PINP/ CTXI  
Spot urinary  
Calcium/  
Creatinine

Stop Bisphosphonate therapy  
Check calcium intake; Falls risk  
Complete yellow card and Frisby atypical form  
Blood and urine  
Repeat DXA

Store  
Serum  
Urine  
DNA  
as part of  
research

Suitable for Teriparatide and  
patient agrees

YES

NO

Apply for 24 months  
teriparatide therapy

Consider Strontium  
ranelate 2g nocte

Advise patient to represent to Fracture Prevention/ Osteoporosis Service if further fracture  
or new/ worsening localised back pain

Repeat clinical review  
with DXA at 24 months

Not Osteoporotic

Osteoporotic

Lifestyle measures

Consider further  
therapy (e.g.  
strontium)