Management of men and women over 50yrs who have sustained a fragility fracture: 2014 guidance (review Spring 2016)

Fragility fracture definition:
Fracture site excluding fingers, toes, scaphoid and skull
Fracture force excluding major RTA or fall from more than 6 feet

DXA
Not essential If over 75 years OR DXA clinically inappropriate

Lowest T score > -2

Lowest T score -2 to -2.5

Lowest T score < -2.5
OR DXA inappropriate
OR Current steroids planned for 3+ months

General guidance, Smoking cessation, Alcohol moderation, ensure Calcium and vitamin D Replete

BLOOD INVESTIGATIONS[1]: Bone profile (Serum calcium, phosphate, ALP, Albumin, 25OH vitamin D), Renal profile, ALT/ AST, FBC, ESR, TSH

Multiple fractures,
vertebral fracture,
Or secondary cause

YES

NO

Repeat BMD in 2-5 years
or sooner if further fracture

Ensure Calcium and vitamin D replete

+

Start Bone specific Therapy

[1]Additional Investigations if indicated:
- PTH (if high calcium or eGFR < 30 ml/min)
- Coeliac screen (if history of unexplained anaemia)
- Serum & urine electrophoretic strip (if unexplained high ESR)
- 24 hour urinary calcium (if high calcium/ renal stones)
- 0900 serum testosterone, LH and SHBG, PSA (Men)
- 24 hour urinary cortisol

Secondary causes including:
Smoker, Alcohol >3 units, parental hip fracture
Inflammatory arthritis including Rheumatoid
Inflammatory bowel disease
Chronic liver disease, Malabsorption
Hypogonadism, Menopause < 45 years
Type I diabetes, Multiple sclerosis, Parkinson's Disease

DURATION OF THERAPY:

Oral agents:
- Assess adherence @ 3mth then annually
- Review treatment after 5 years
- At end of treatment cycle consider:
  - >RE-fractures, adherence, tolerance
  - >Continuing for 10yr total if:
    > 75yrs, hip/spine/multiple fractures, current oral glucocorticoids, pretreatment DXA <-4 or < -2.5 at end of treatment
- Else 3 years off treatment then restart
- Zoledronate: 3 yrs then reassess

INDICATIONS for Referral to bone clinic:
1. Pre-menopausal women with fragility fracture
2. Men under the age of 60 years with fragility fracture
3. Multiple fragility fractures with BMD >-2
4. Fragility fractures with complex medical diseases including cancer therapies and kidney disease.
5. Worsening painful vertebral fractures for > 6 weeks
6. Atypical subtrochanteric fracture

Bone markers if available:
Serum PINP or Fasting serum CTXI

Medical management of men and women over 50yrs who have sustained a fragility fracture: 2014 guidance

Alendronate for 5-10 yrs
70mg once a week
+ **With Ca + Vit D**

Prescriber:
Check for swallowing, dyspepsia, ulcer
Check GFR/eGFR > 30ml/min
discuss administration /compliance
discuss potential side effects

Compliance review at 3 months

COMPLIANT – continue for 5 yrs and review compliance annually

NON Compliant

Re-education and additional support

NON Compliant after further 3 months of support

Risk assess need for treatment

Benefit of treating outweighed by poor compliance / side effects

Treat as intolerant

Intolerant to Alendronate

Side effect: Dyspepsia

MILD
Risedronate

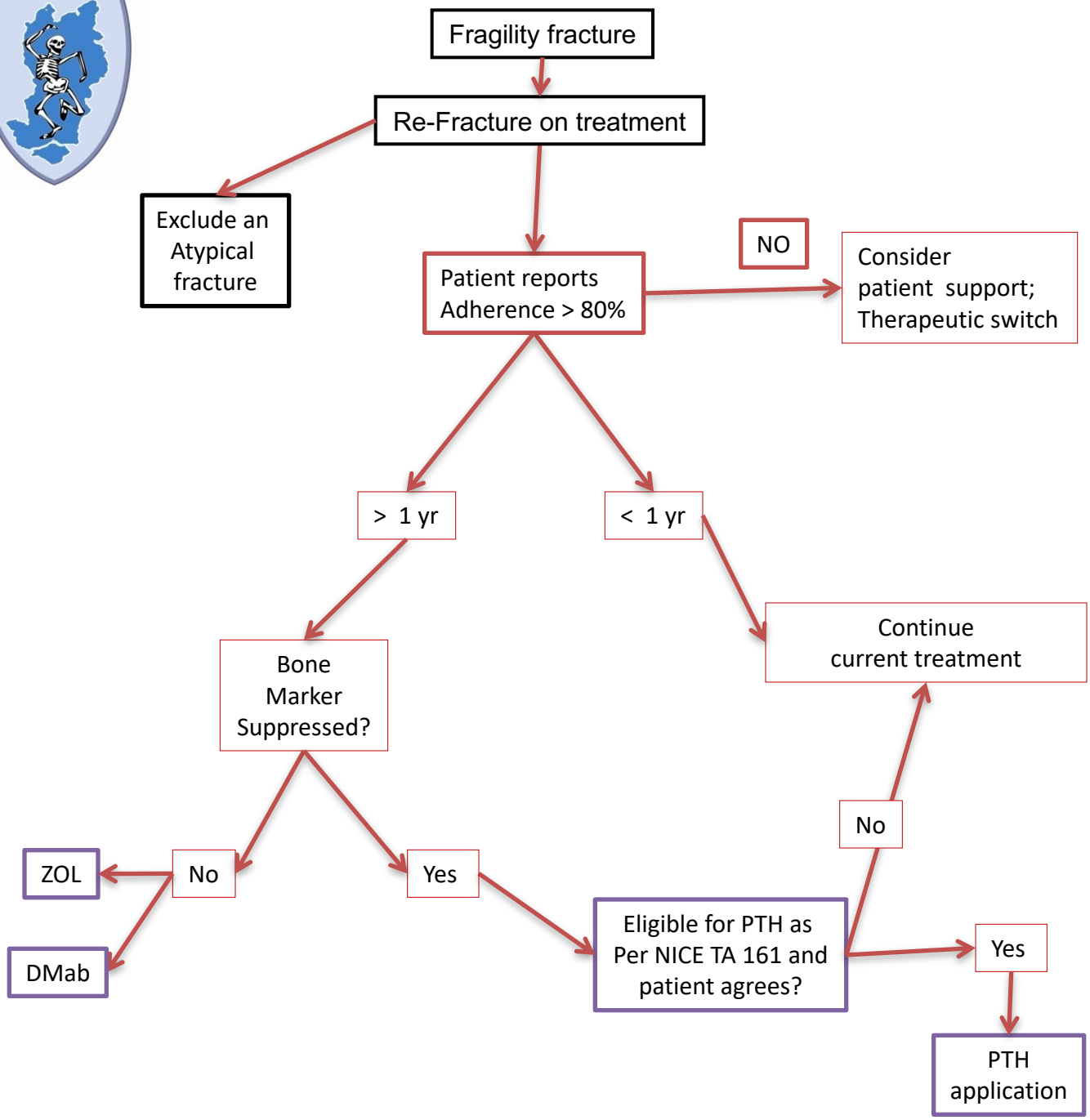
MODERATE*
Denosumab
OR Zoledronate

Side effect: Swallowing issue

Denosumab
OR Zoledronate*

Agents recommended
for glucocorticoid induced osteoporosis:
1. Oral/ iv Bisphosphonates (Aln, Ris, Zol)
2. Teriparatide

Dosages of agents:
Alendronate 70 mg ow
Risedronate 35mg ow
Denosumab 60mg sc 6 monthly
Zoledronate 5mg yearly x3
Teriparatide 20mg sc od
*Raloxifene in selected patients



Bone markers:

1. Serum PINP or Fasting serum CTXI
2. Taken within 48 hours of fracture
3. Suppressed according to local ranges