NOF Interdisciplinary Symposium on Osteoporosis (ISO 2016) FLS in Action

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Objectives

- Describe the roles and daily activities of key members of the FLS program team
- Adapt FLS basic concepts to their own practice and FLS program
- Case studies as it relates to the 3 I’s of a successful and sustainable FLS program

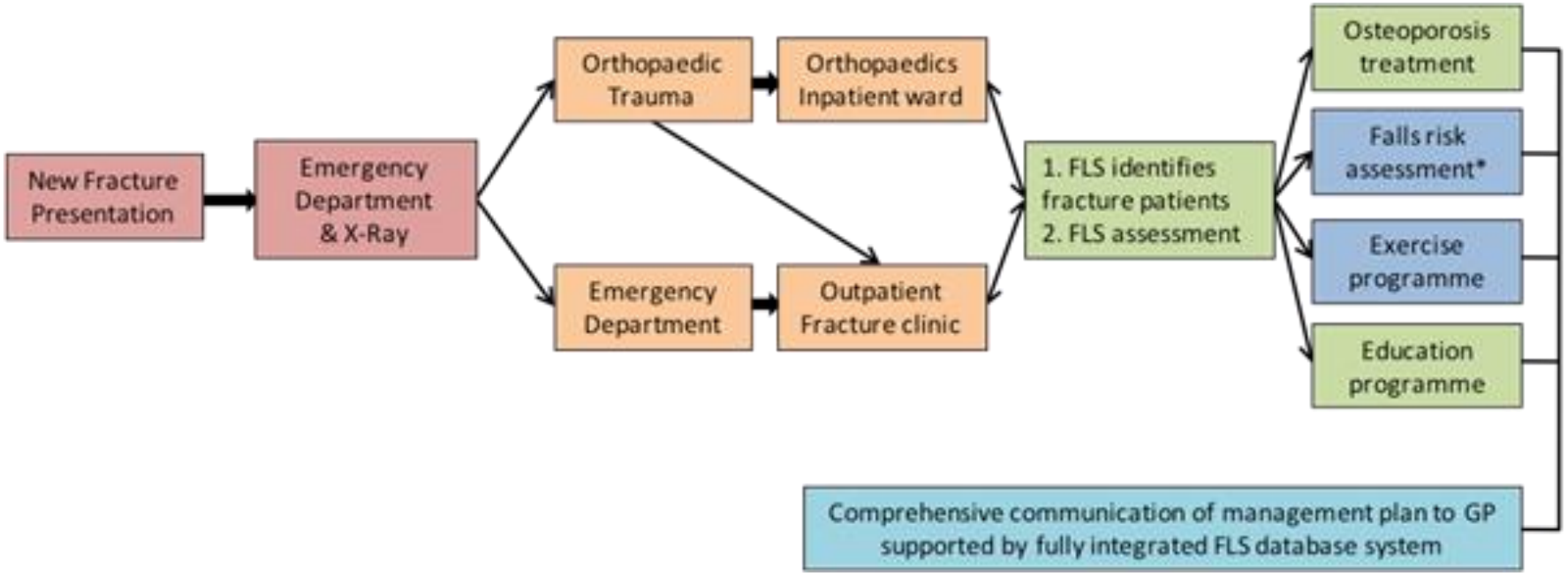
Remember to keep in mind

- **BMD + Bone Quality = Bone Strength**

AAOS Position Statement regarding osteoporosis in the post fracture over 50 with compromised bone strength at high risk for future fracture:

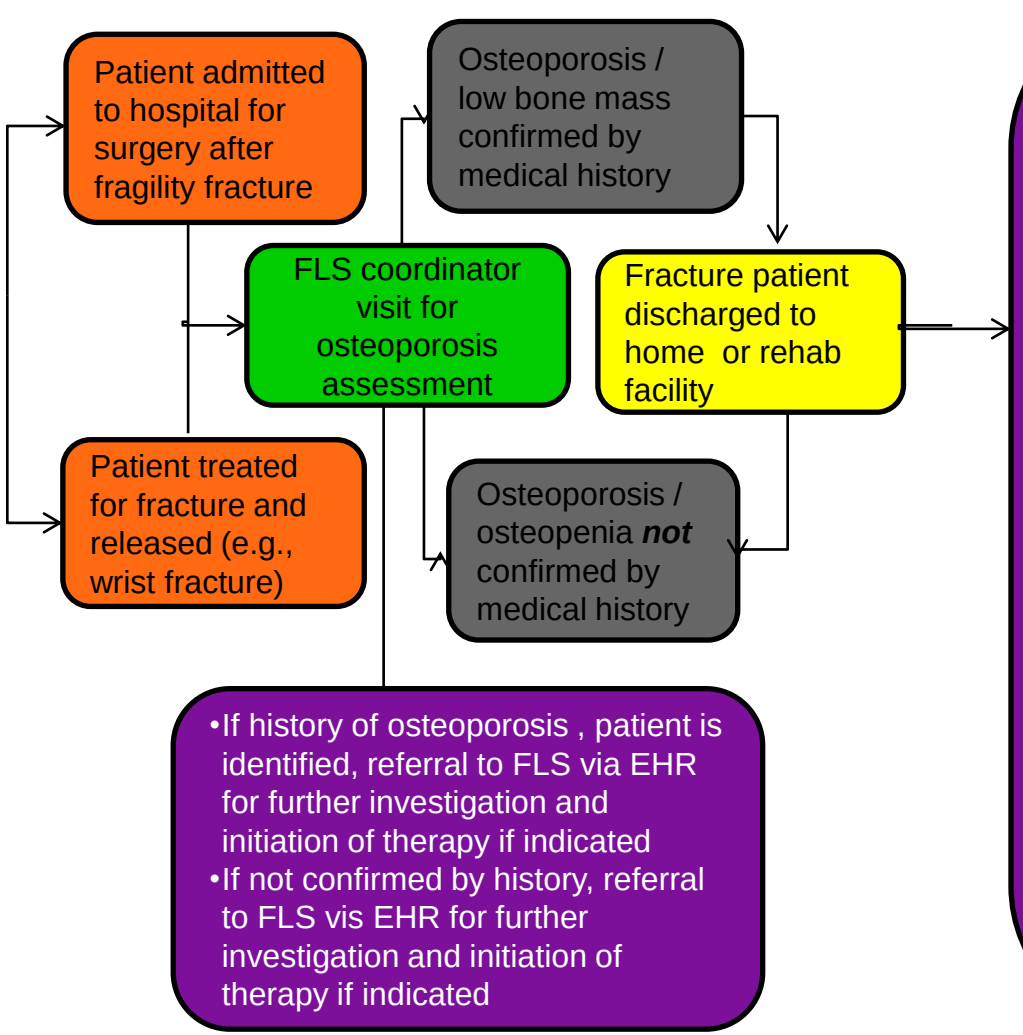
To minimize future predicted costs, morbidity, and mortality from increasing numbers of osteoporotic fractures in our rapidly aging population, the AAOS recommends that osteoporosis should become a national public health priority.[6] While current research demonstrates that pharmacological therapies can decrease the risk of fractures, new research is required to evaluate the role of each of our current therapies and to allow us to develop new therapeutic agents that can strengthen aging bones.

FLS Program Flow Model



FLS program flow model
(see http://www.nbha.org/fpc/international-programs)

FLS Model of Care Patient Flow at Wake Forest Baptist Medical Center



At discharge **identified** patient ‘s (50 and over with fracture) are made aware of the FLS service and the value it brings to their care by improving both **quality of care** and **quality of life** by helping to reduce the risk of future fractures

Video introducing FLS program

- **Patient disposition** after discharge is important in order to improve care coordination and appropriate, timely follow up
- **Initial visit** is primarily focused on **investigation** and assessment . This includes appropriate and medically necessary ordering of labs, bone density, records request in order to develop the best treatment plan for the patient and their family. Patient education material given and risk factors identified and discussed (usually 30-45 minute visit)
- **Follow up visit:** Discuss results and make treatment recommendation for **initiation** of treatment if indicated (usually 20-30 minutes depending on need)

Pt admitted to acute care for fracture care

- Challenge
  - How to **identify**? Who is responsible for starting the communication pathway?
  - Whose line is it anyway? ER MD, Nurse, Secretary, scribe, Orthopaedic Surgeon, other personnel?
  - If there is a designated FLS coordinator or nurse navigator how will they be notified about the patient?
- Solution
  - Recommend a team approach by first identifying key people in the chain of care and put together a team. This team will have a member that represents each department along the care continuum.
  - Helps all focus on a common goal of improved quality

Pt makes it to the floor then what happens?

- Challenge
  - Once identified, who will be responsible for documenting the need for further **investigation?**

  What will be completed in the hospital and what will be planned for outpatient follow-up?

  What labs? Bone density?

- Solution

  If FLS coordinator is an advanced practice provider (APP) or physician with an NPI number then it may be appropriate to start the work up in the hospital, currently a billable visit.

  If the FLS is not an APP or a physician, the investigation can begin with appropriate documentation and referral to FLS APP or physician for complete workup as an out pt.

Patient makes it to the floor then what happens?

- **Challenge**

  -What does the documentation look like?

  -How will the patient be informed and educated about the FLS service and why it is important as part of their care?

- Solution
  - Documentation in the **acute care** setting needs to include any supporting medical history, medications, fracture history that would indicate the patient needs further bone health workup for secondary fracture prevention and for reduced healthcare cost.

Things to consider

- Be cautious about what labs you order when the patient is in **acute** care because many labs are not recognized as “medically necessary” and will not be covered.
- Make sure orders are “married to “ diagnosis for proper reimbursement
- For example:
  - Hypothyroidism+TSH
  - Other osteoporosis+TSH
  - Vitamin D insufficiency+Vitamin D 25 hydroxy level
  - Back pain+Serum protein electrophoresis
  - Anemia+CBC

Documentation

- Documentation will mainly reflect time spent in “summarizing” the medical record and in performing the patient interview..
- Let’s be realistic:
  - Need to consider the patient’s ability to engage in understanding the need for this visit based on what is happening at that time during their care

Close to discharge

- Challenge
  - Pt may feel overwhelmed with everything they have experience so their retention ability and learning curve may be skewed.
- Solution
  - Simple educational information
  - i.e video, one pamphlet explaining FLS and importance to their care.
  - All should reflect to the patient and family that the goals of this program match their goals: a break free future

FLS video

Case One

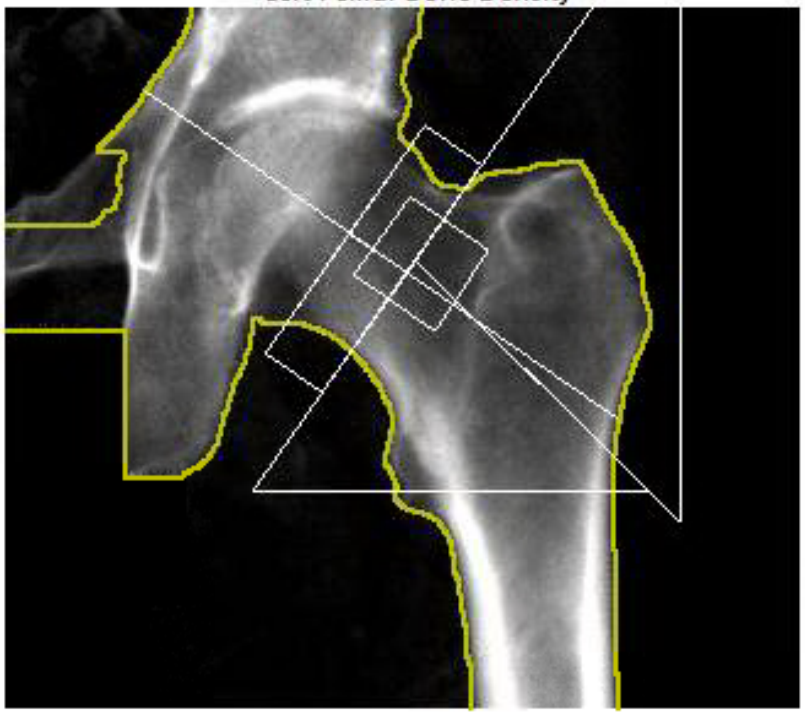
- 71 year old male
- Hip fracture, low trauma fall
- PMHx
  - Kidney stones
  - Coronary artery disease
  - Hypertension
  - Congestive heart failure
  - **Small bowel resection**
- Current Medications
  - Atorvastatin
  - Metoprolol
  - Ramipril
  - Spironolactone
  - Not adherent/compliant
- **“a male hip fracture patient with multiple comorbidites”**

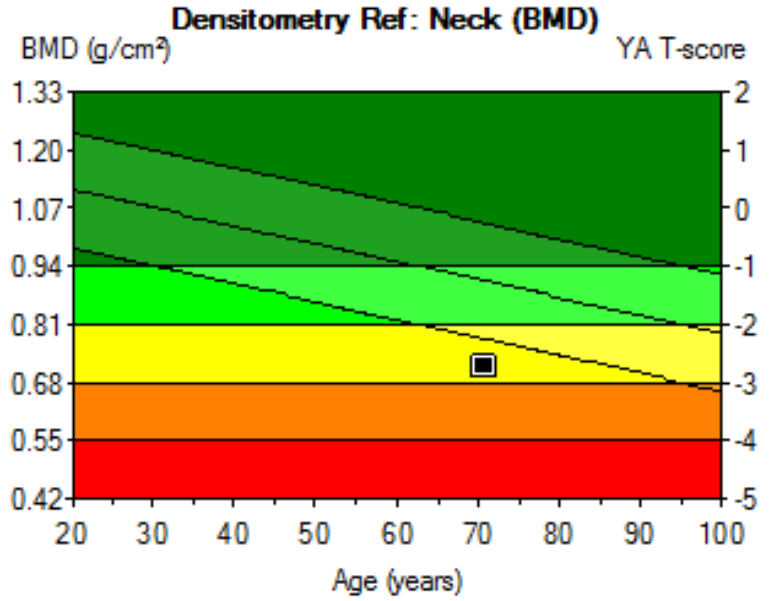

R

Risk Factors for Fragility Fracture and Bone Loss

- **Previous small bowel resection might decrease ability to absorb vitamin D**
- Increased fall risk, on walker after hip fracture
- No Hx of:
  - parental hip fracture or OP
  - glucocorticoids
  - excessive alcohol or caffeine

Left Femur Bone Density





Region	1 BMD (g/cm²)	2 Young-Adult (%)	2 Young-Adult T-score	3 Age-Matched (%)	3 Age-Matched Z-score
Neck	0.714	67	-2.7	79	-1.5
Upper Neck	0.530	58	-2.9	71	-1.6
Lower Neck	0.897	-	-	-	-
Wards	0.573	60	-3.0	80	-1.1
Troch	0.731	79	-1.8	84	-1.3
Shaft	1.021	-	-	-	-
Total	0.843	77	-1.9	86	-1.0

Vertebral Fracture Assessment

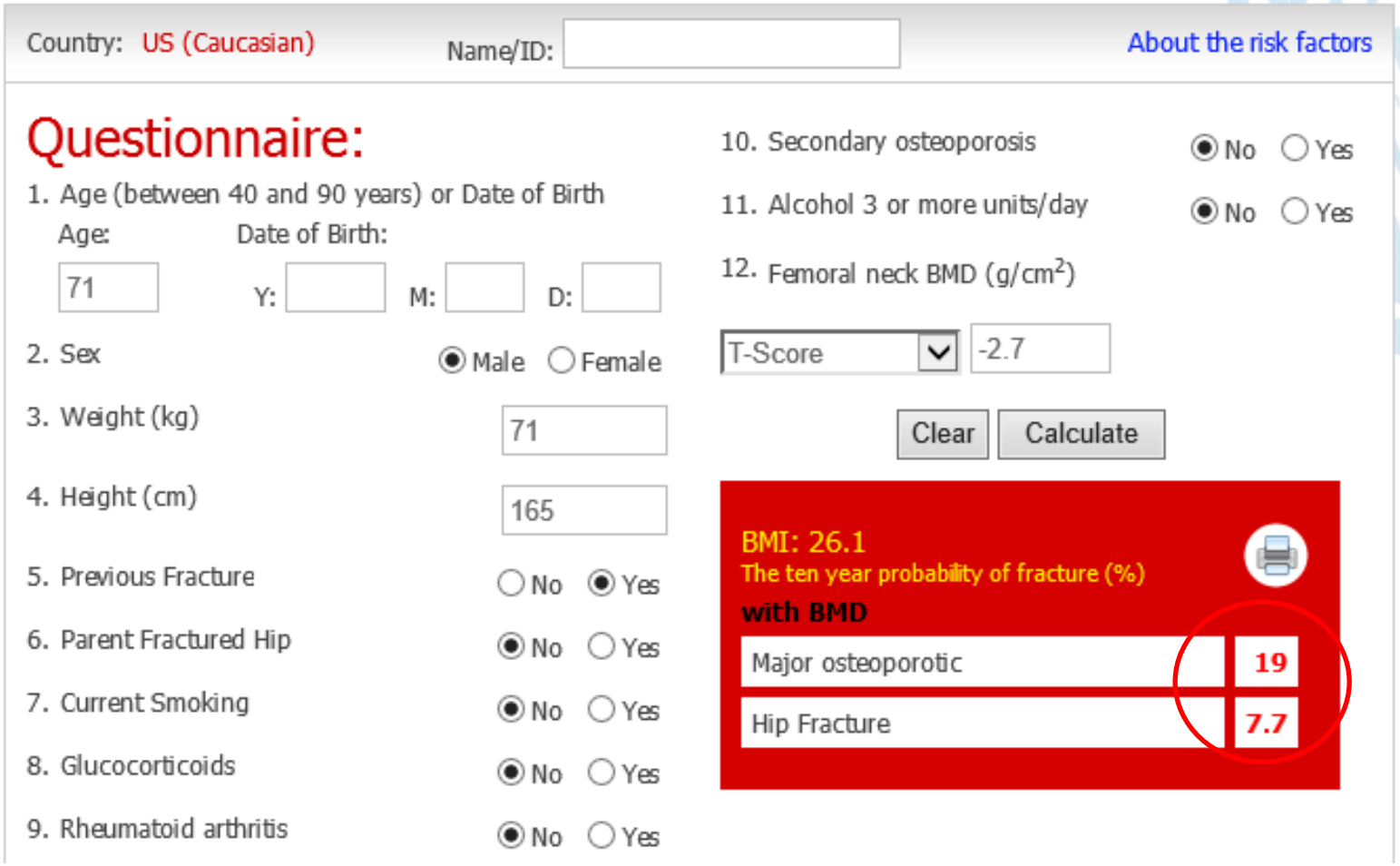
LVA Morphometry

Region[1]	Avg. Ht.[2] (cm)	Z-score	A/P Ratio[2] (%)	Z-score
T4	1.82	-0.4	98	0.5
T5	1.74	-1.2	100	0.7
T6	1.99	0.2	99	1.1
T7	1.88	-0.7	91	0.0
T8	1.90	-0.9	85	-1.0
T9	1.99	-0.7	89	-0.6
T10	1.83	-2.3	99	0.8
T11	1.84	-2.8	75	-2.7
T12	2.45	-0.3	88	-0.6
L1	2.56	-0.4	85	-1.0
L2	2.77	0.2	95	0.0
L3	2.83	0.1	103	0.7
L4	2.71	-0.4	95	-0.8

Moderate Biconcavity

FRAX

Please answer the questions below to calculate the ten year probability of fracture with BMD.



Laboratory Results

- **25-hydroxy-vitamin D level is DEFICIENT** at 12 nmol/L
- Serum C-telopeptide (cross-laps assay), a marker of bone turnover is 271.6 ng/L (normal)
- Investigations normal: serum protein electrophoresis, celiac screen, TSH, intact PTH, LFT, electrolytes, and bioavailable testosterone

Treatment Recommendations

- **Rx: 50,000 IU vit D2 po weekly** (at 3/12 follow-up: 63 nmol/L; ideally ≥ 75)
- 1200 mg of calcium through diet and supplements
- Wt-bearing and postural exercise, avoid heavy weights or twisting spine; Falls Prevention
- Pharmacologic management: **Antiresorptive or Anabolic agent.**
- **Clinicians Guidelines to Treatment and Management of Osteoporosis (NOF 2014)**
- Patient wants to FU with PCP only – ***(limiting for FLS…)***

Case Two

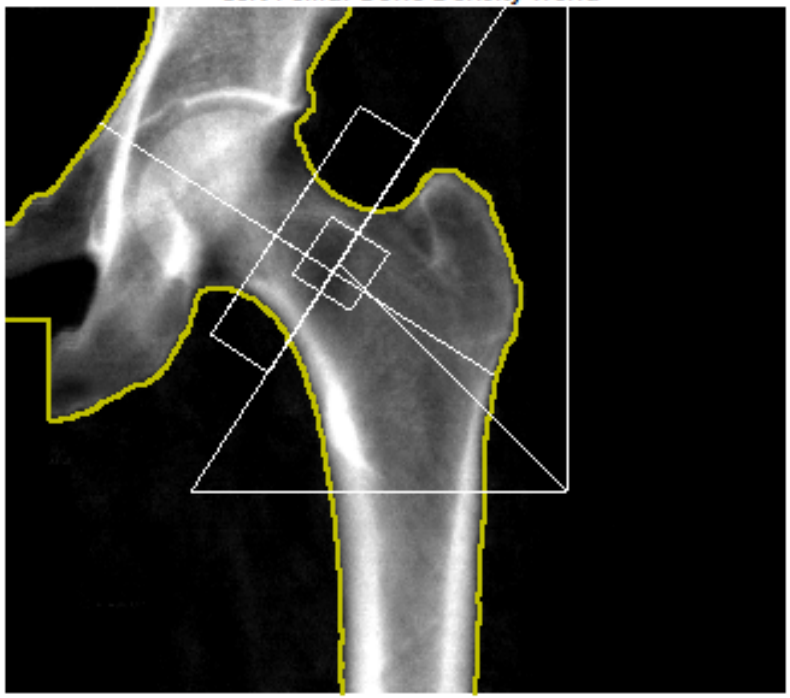
- 63 year old female
- Proximal humerus fracture, from low trauma fall
- PMHx:
  - Early Menopause
  - Family History of Osteoporosis
  - Diabetes
  - Psoriasis
  - Hypertension
- Current Medications
  - Altace
  - Metformin
  - Insulin

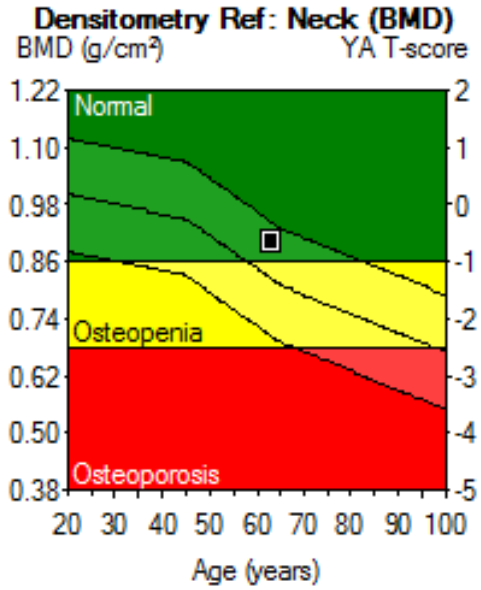

L
SUPINE
PORTABLE

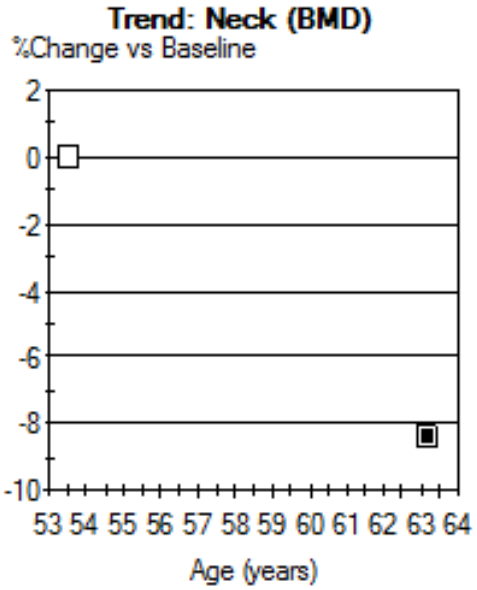
Risk Factors for Fragility Fracture and Bone Loss

- **Postmenopausal at the age of 42, naturally**
- **3+ alcoholic beverages per day**
- **Smoker**
- No other Hx of:
  - parental hip fracture
  - glucocorticoids
  - falls
  - excessive caffeine use

Left Femur Bone Density Trend







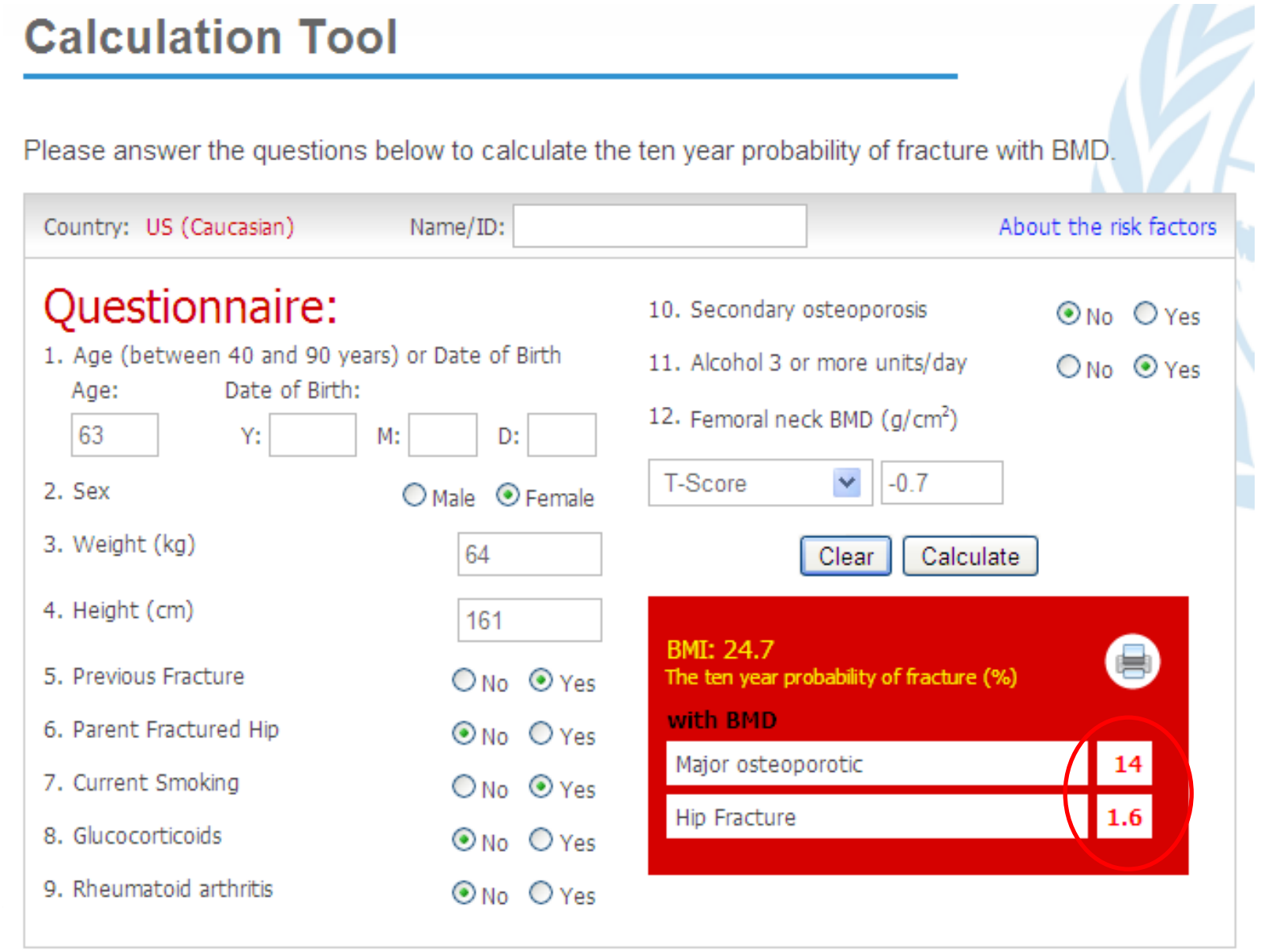
Region	1 BMD (g/cm²)	2 Young-Adult (%)	2 Young-Adult T-score	3 Age-Matched (%)	3 Age-Matched Z-score
Neck	0.901	92	-0.7	110	0.7
Upper Neck	0.720	88	-0.8	108	0.5
Lower Neck	1.082	-	-	-	-
Wards	0.621	68	-2.2	93	-0.4
Troch	0.764	97	-0.2	106	0.4
Shaft	1.115	-	-	-	-
Total	0.946	95	-0.5	108	0.6

Vertebral Fracture Assessment

LVA Morphometry

Region[1]	Avg. Ht.[2] (cm)	Z-score	A/P Ratio[2] (%)	Z-score
T4	1.88	0.1	94	0.1
T5	2.01	0.7	98	0.8
T6	2.02	0.4	92	0.4
T7	2.11	0.8	87	-0.3
T8	1.99	-0.3	95	0.7
T9	2.16	0.3	93	0.0
T10	2.36	0.7	97	0.5
T11	2.39	0.0	86	-1.0
T12	2.60	0.0	93	-0.2
L1	2.88	0.5	99	0.6
L2	2.96	0.4	101	0.2
L3	2.86	-0.3	92	-1.4
L4	2.90	-0.1	107	0.3

FRAX


Calculation Tool
Please answer the questions below to calculate the ten year probability of fracture with BMD.
Country: US (Caucasian)
Name/ID:
About the risk factors
Questionnaire:
1. Age (between 40 and 90 years) or Date of Birth
Age:
Date of Birth:
63
Y:
M:
D:
2. Sex
Male
Female
3. Weight (kg)
64
4. Height (cm)
161
5. Previous Fracture
No
Yes
6. Parent Fractured Hip
No
Yes
7. Current Smoking
No
Yes
8. Glucocorticoids
No
Yes
9. Rheumatoid arthritis
No
Yes
10. Secondary osteoporosis
No
Yes
11. Alcohol 3 or more units/day
No
Yes
12. Femoral neck BMD (g/cm²)
T-Score
-0.7
Clear
Calculate
BMI: 24.7
The ten year probability of fracture (%)
with BMD
Major osteoporotic
14
Hip Fracture
1.6

Laboratory Results **Negative**

- No secondary causes of OP found in labs
- 25-OH vit D level replete at 98 nmol/L
- Serum C-telopeptide is 425.7 ng/L (normal)
- Investigations normal: Serum protein electrophoresis, celiac screen, TSH, intact PTH, LFT, electrolytes, and CBC

Treatment Recommendations

- Vitamin D 1000 IU through a supplement
- Calcium 1200 mg through diet and supplements
- Wt-bearing + postural exercises, regular walking
- Reduce EtOH
- Smoking cessation
- **MODERATE RISK**
- Rx: **Consider treatment due to compromised bone quality despite a normal BMD**
- If started on an antiresorptive consider repeat BMD in 1 year to monitor treatment effectiveness

Case Three

- 80 y.o. female
- **Distal fibula stress fracture**

- PMHx:
  - **shoulder fracture 17 years ago**
  - remote history of nephrolithiasis
  - Type 2 diabetes
  - macular degeneration

- Current Medications
  - Metformin
  - Previously on estrogen for five years after menopause

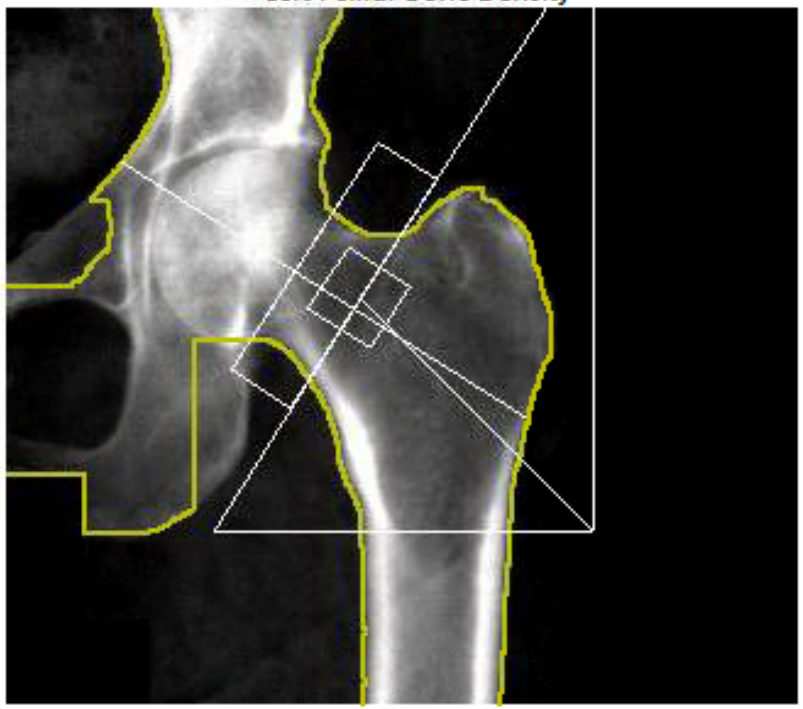
Suprasyndesmotic distal fibular diaphyseal fracture

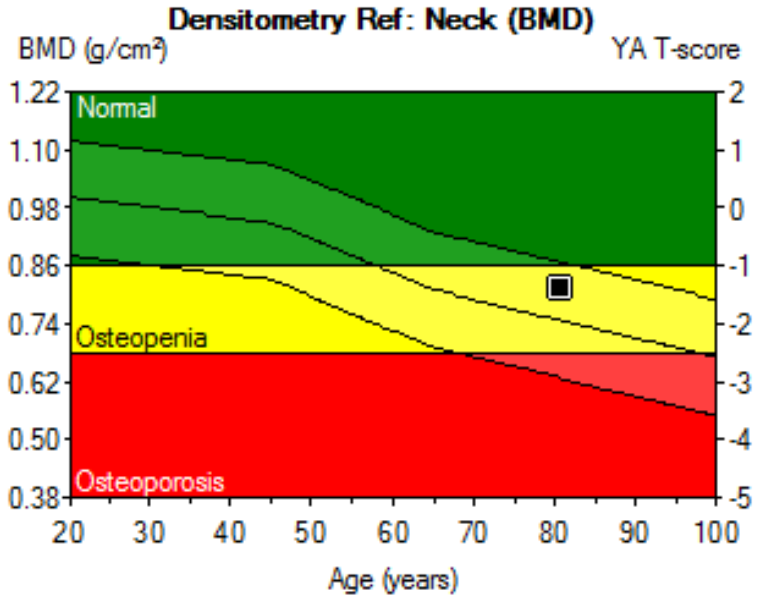
- Should we count this fracture?
- FRAX includes **stress fracture or low trauma fracture of the ankle** (some national guidelines don’t)

Risk Factors for Fragility Fracture and Bone Loss

- Postmenopausal status
- **Falls risk: diabetic retinopathy + OA knees**
- Ex-smoker, quit two years ago
- Prior treatment with Alendronate for about 6 years but nothing for the past 2 years
- No Hx:
  - Diabetes
  - Hx of wrist fracture age 62 from low trauma fall
  - parental hip fracture or OP
  - glucocorticoids

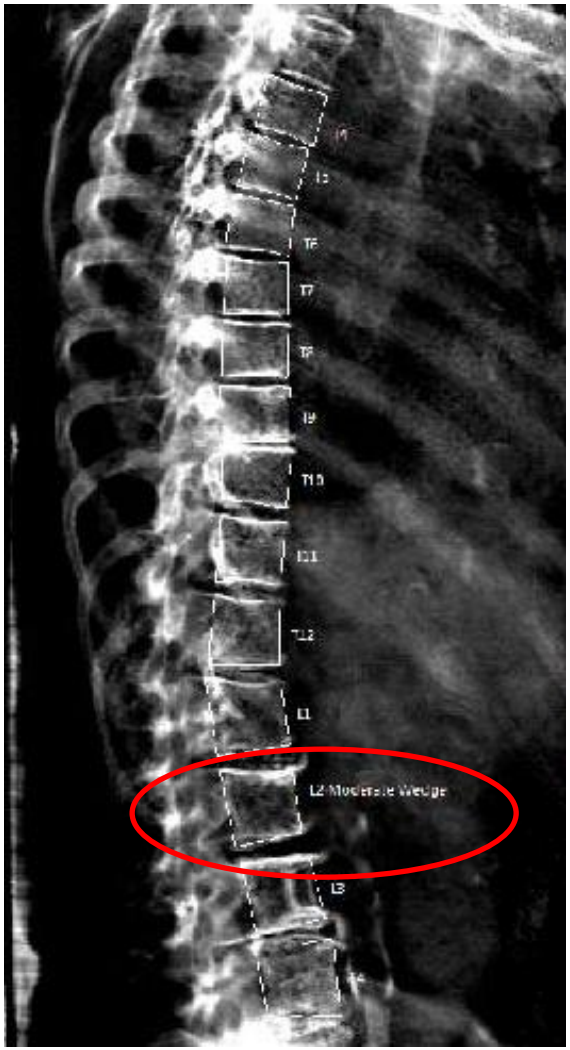
Left Femur Bone Density





Region	1 BMD (g/cm²)	2 Young-Adult (%)	2 Young-Adult T-score	3 Age-Matched (%)	3 Age-Matched Z-score
Neck	0.815	83	-1.4	109	0.6
Upper Neck	0.623	76	-1.7	106	0.3
Lower Neck	1.006	-	-	-	-
Wards	0.525	58	-3.0	89	-0.5
Troch	0.636	81	-1.4	98	-0.1
Shaft	1.021	-	-	-	-
Total	0.827	83	-1.4	106	0.4

Vertebral Fracture Assessment



LVA Morphometry

Region[1]	Avg. Ht.[2] (cm)	Z-score	A/P Ratio[2] (%)	Z-score
T4	1.79	1.6	99	0.7
T5	1.85	1.7	96	0.5
T6	1.85	1.4	90	0.0
T7	1.88	1.4	93	0.6
T8	1.87	1.0	100	1.6
T9	1.93	0.9	93	0.1
T10	1.94	0.2	113	2.9
T11	2.23	1.1	96	0.5
T12	2.33	0.7	93	-0.1
L1	2.50	0.8	80	-2.3
L2	2.40	-0.2	79	-3.1
L3	2.39	-0.5	86	-2.4
L4	2.64	0.8	100	-0.7

Moderate Wedge

FRAX

Calculation Tool

Please answer the questions below to calculate the ten year probability of fracture with BMD.

Country: US (Caucasian) Name/ID: About the risk factors

Questionnaire:

1. Age (between 40 and 90 years) or Date of Birth
   Age: 80 Date of Birth: Y: M: D:
2. Sex ○ Male ◉ Female
3. Weight (kg) 60
4. Height (cm) 159
5. Previous Fracture ○ No ◉ Yes
6. Parent Fractured Hip ◉ No ○ Yes
7. Current Smoking ◉ No ○ Yes
8. Glucocorticoids ◉ No ○ Yes
9. Rheumatoid arthritis ◉ No ○ Yes
10. Secondary osteoporosis ◉ No ○ Yes
11. Alcohol 3 or more units/day ◉ No ○ Yes
12. Femoral neck BMD (g/cm^2)
    T-Score -1.4

Clear Calculate

BMI: 23.7
The ten year probability of fracture (%)
with BMD

Major osteoporotic	19
Hip Fracture	3.9

Laboratory Tests **Negative**

- No secondary causes of OP on investigation
- Serum vit D normal
- Investigations normal: Serum C-telopeptide, Serum protein electrophoresis, celiac screen, TSH, intact PTH, LFT, electrolytes, and CBC

Treatment

- **NEW vertebral fracture found** – therefore, pt at **high risk** of future fracture.
- Vitamin D 1000 IU through a supplement
- Calcium 1200 mg through diet and supplements
- Wt-bearing + postural exercises
- **Fall Prevention strategies intervention**
- **Rx: Antiresportive or Anabolic**
- ***With fibular stress fracture alone – ?would pt have been at sufficiently high risk to justify bone active agent?***

Case Four

- 62 year old male
- Distal radius fracture from a low trauma fall
- PMHx:
  - Nephrolithiasis
  - Diabetes Type II
  - Hypothyroidism
  - Mild asthma
  - RA

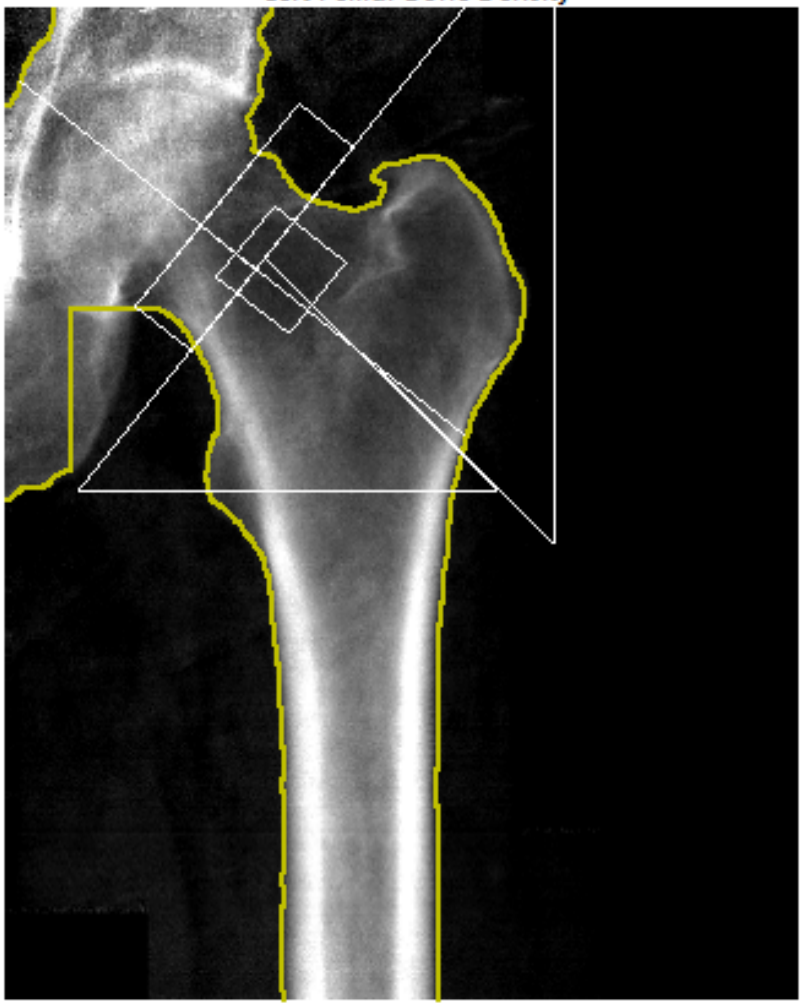
- Current Medications
  - Levothyroxine
  - Metformin
  - Diazepam
  - nitroglycerin prn
  - Methotrexate
  - Prednisone 5 mg daily for 6-8 months a year ago

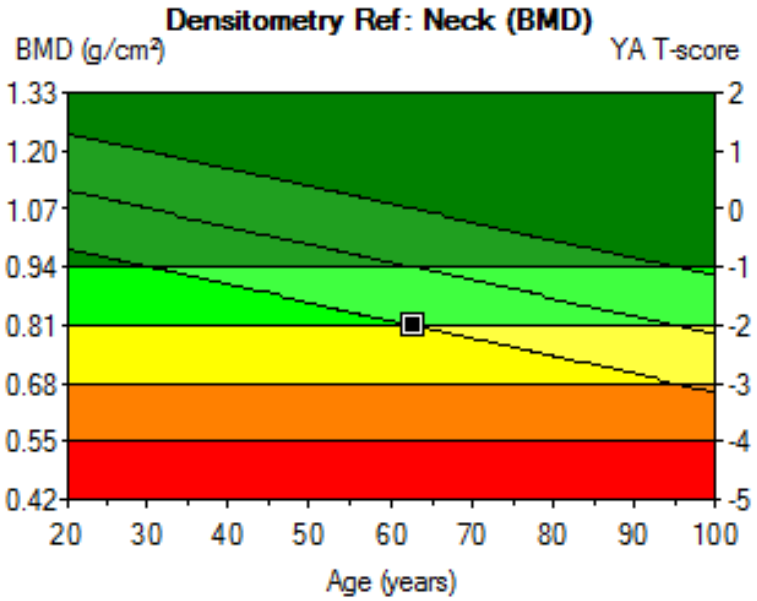

L

Risk Factors for Fragility Fracture and Bone Loss

- **High falls risk: diabetic retinopathy**
- Excessive caffeine
- No Hx of:
  - OP or parental hip fracture
  - smoking
  - excessive alcohol

Left Femur Bone Density





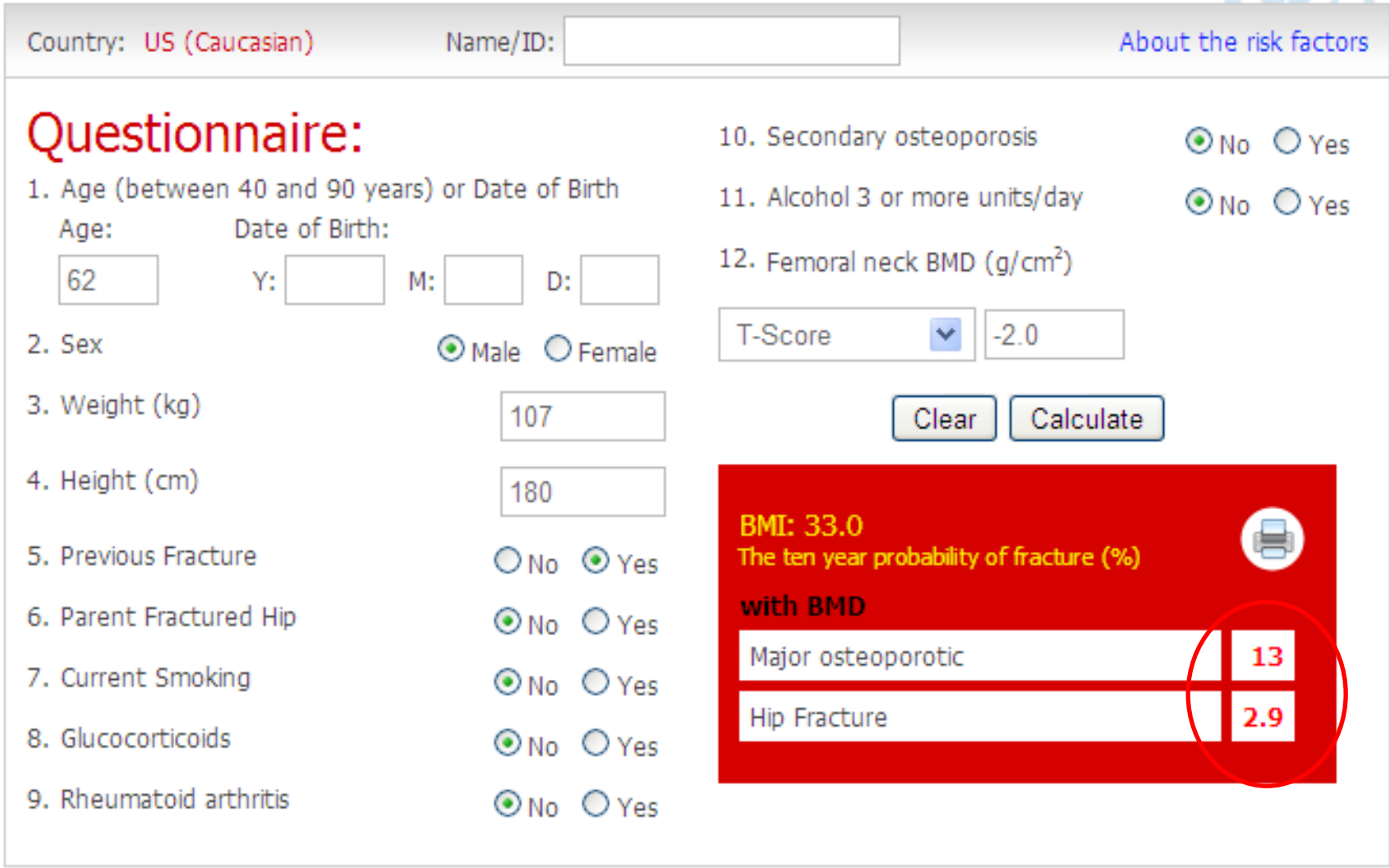
Region	1 BMD (g/cm²)	2 Young-Adult (%)	2 Young-Adult T-score	3 Age-Matched (%)	3 Age-Matched Z-score
Neck	0.811	76	-2.0	86	-1.0
Upper Neck	0.582	64	-2.6	75	-1.5
Lower Neck	1.041	-	-	-	-
Wards	0.515	54	-3.4	67	-1.9
Troch	0.757	81	-1.6	86	-1.1
Shaft	1.020	-	-	-	-
Total	0.871	80	-1.7	87	-1.0

?

Vertebral Fracture Assessment

- Not completed by patient
- Spinal x-rays ordered: not completed by patient

FRAX


Country: US (Caucasian)
Name/ID:
About the risk factors
Questionnaire:
1. Age (between 40 and 90 years) or Date of Birth
Age:
Date of Birth:
62
Y:
M:
D:
2. Sex
Male
Female
3. Weight (kg)
107
4. Height (cm)
180
5. Previous Fracture
No
Yes
6. Parent Fractured Hip
No
Yes
7. Current Smoking
No
Yes
8. Glucocorticoids
No
Yes
9. Rheumatoid arthritis
No
Yes
10. Secondary osteoporosis
No
Yes
11. Alcohol 3 or more units/day
No
Yes
12. Femoral neck BMD (g/cm²)
T-Score
-2.0
Clear
Calculate
BMI: 33.0
The ten year probability of fracture (%)
with BMD
Major osteoporotic
13
Hip Fracture
2.9

Laboratory Results

- **Intact PTH slightly elevated at 122 possibly due to Vit D insufficiency**
- 25-hydroxy-vitamin D 24 nmol/L (ideally ≥ 75)
- Platelets are low at 72 with occasional giant platelets, with an otherwise normal CBC
- Other invest. NORMAL

Treatment Recommendations

- Consider Vitamin D2 50000 units weekly for 12 weeks then a maintenance of D3 5000 units daily
- Calcium 1000 mg through diet and supplements
- Wt-bearing, postural exercises; Falls Prevention
- Reduce caffeine intake, smoking cessation
- **RISK LEVEL: MODERATE/BORDERLINE HIGH**
- **Rx:** Clinical Judgement: borderline - younger male with a wrist fracture. **This is osteoporosis despite osteopenia on BMD.**
- **Follow-up** important. BMD and reassess in 2 years

Wake Forest University Baptist
MEDICAL CENTER®

WFUBMC

The **choice** you can **believe** in……. because **outstanding** hospitals don't simply treat the fragility fracture, they prevent fractures from reoccurring.

Case Five

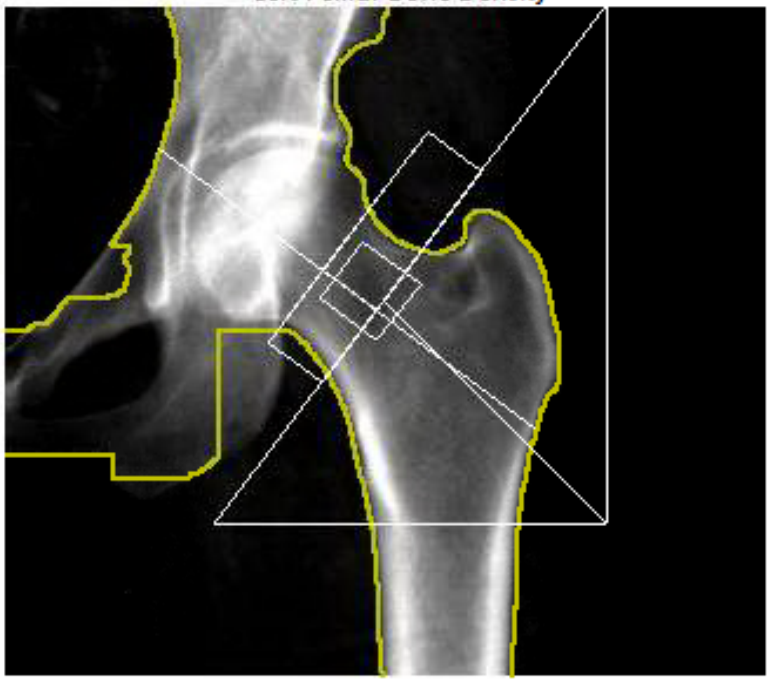
- 54 year old female
- Proximal humerus fracture from high trauma injury, MVA
- PMHx:
  - Hypertension
  - Dyslipidemia
- Current Medications
  - Norvasc
  - Lipitor
  - Dexedrine p.r.n.
  - Vitamin D 2000 units daily
  - Calcium 600mg sometimes

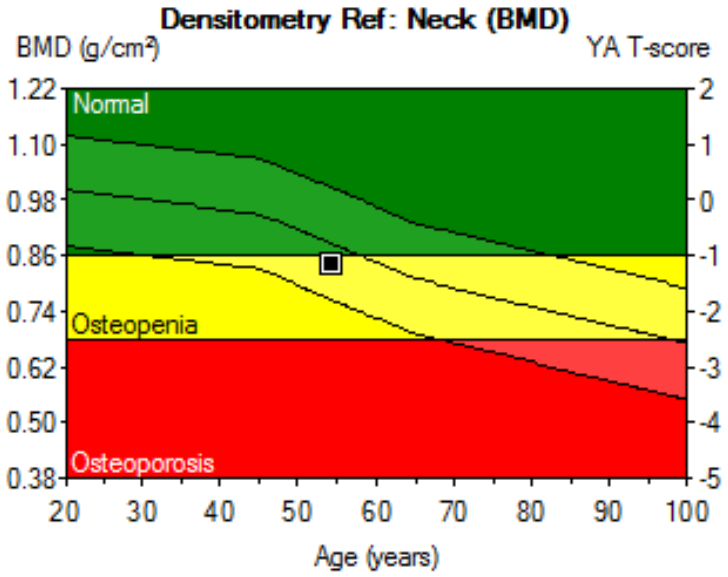

R

Risk Factors for Fragility Fracture and Bone Loss

- **Previous contralateral humerus fracture at age 49 from a fall while skiing**
- Spinous processes fracture at age 40 in boating accident (high trauma)
- Postmenopausal
- **Smokes** ½ pack daily since teenager
- **Maternal Hx of OP and vertebral fractures**
- Rest of history: NEGATIVE

Left Femur Bone Density





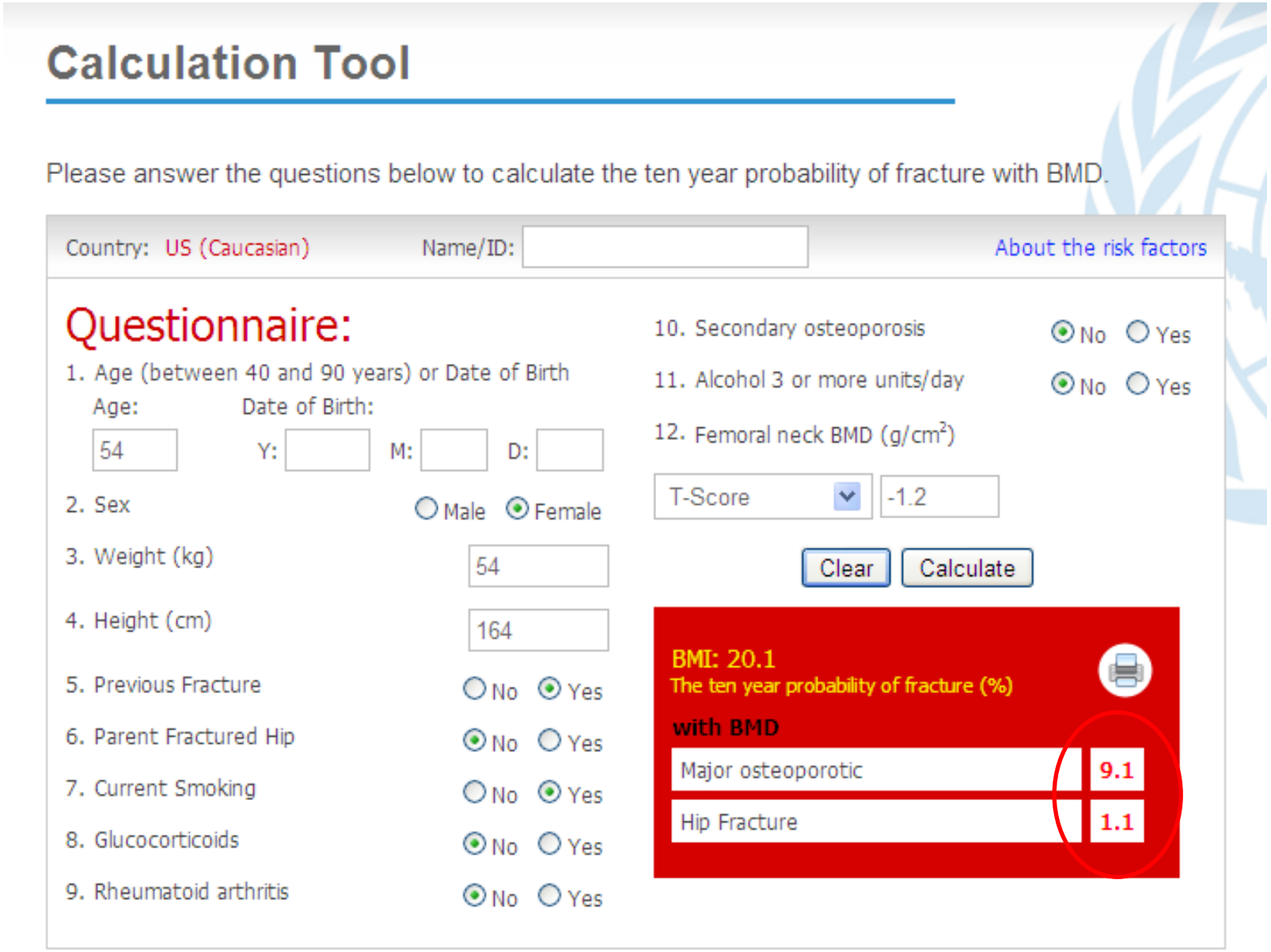
Region	1 BMD (g/cm²)	2 Young-Adult (%)	2 Young-Adult T-score	3 Age-Matched (%)	3 Age-Matched Z-score
Neck	0.842	86	-1.2	95	-0.4
Upper Neck	0.660	80	-1.3	91	-0.5
Lower Neck	1.023	-	-	-	-
Wards	0.644	71	-2.0	85	-0.9
Troch	0.703	89	-0.8	93	-0.4
Shaft	1.099	-	-	-	-
Total	0.908	91	-0.8	98	-0.2

Vertebral Fracture Assessment

LVA Morphometry

Region[1]	Avg. Ht.[2] (cm)	Z-score	A/P Ratio[2] (%)	Z-score
T4	1.65	-1.1	98	0.6
T5	1.97	0.9	94	0.2
T6	1.81	-0.5	92	0.3
T7	1.78	-0.9	93	0.7
T8	1.90	-0.4	102	1.8
T9	1.95	-0.5	101	1.2
T10	2.11	-0.3	94	0.0
T11	2.18	-0.7	83	-1.5
T12	2.34	-0.8	88	-0.9
L1	2.58	-0.4	92	-0.5
L2	2.84	0.4	109	1.5
L3	2.79	-0.1	100	-0.2
L4	2.76	-0.2	110	0.8

FRAX



Calculation Tool

Please answer the questions below to calculate the ten year probability of fracture with BMD.

Country: US (Caucasian) Name/ID: About the risk factors

Questionnaire:

1. Age (between 40 and 90 years) or Date of Birth
   Age: 54 Date of Birth: Y: M: D:
2. Sex ○ Male ◉ Female
3. Weight (kg) 54
4. Height (cm) 164
5. Previous Fracture ○ No ◉ Yes
6. Parent Fractured Hip ◉ No ○ Yes
7. Current Smoking ○ No ◉ Yes
8. Glucocorticoids ◉ No ○ Yes
9. Rheumatoid arthritis ◉ No ○ Yes
10. Secondary osteoporosis ◉ No ○ Yes
11. Alcohol 3 or more units/day ◉ No ○ Yes
12. Femoral neck BMD (g/cm^2) T-Score -1.2

Clear Calculate

BMI: 20.1
The ten year probability of fracture (%)
with BMD

Major osteoporotic	9.1
Hip Fracture	1.1

Laboratory Results

- No secondary causes of OP found in labs
- 25-OH-vitamin D 55 nmol/L (ideally $\geq$ 75)
- Investigations normal: Serum C-telopeptide, Serum protein electrophoresis, celiac screen, TSH, intact PTH, LFT, electrolytes, and CBC

Treatment Recommendations

- Vitamin D3 to 2000 units daily
- 1200 mg Calcium from diet and supplements
- Wt-bearing, postural strengthening exercises
- Falls Prevention intervention
- Smoking cessation
- **Pharmacological Management? – although relatively LOW RISK on FRAX?**
  Rx: Considerations
  Consider T and L spine view
- Repeat BMD, reassess in two years

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Case 6

- 56 year old female
- Vertebral fracture and bilateral sacral ala fractures
- PMHx:
  - **Epilepsy**
  - **JRA**
  - **Schizoaffective disorder**
- Current Medications
  - **Not adherent** with any medications

Risk Factors for Fragility Fracture and Bone Loss

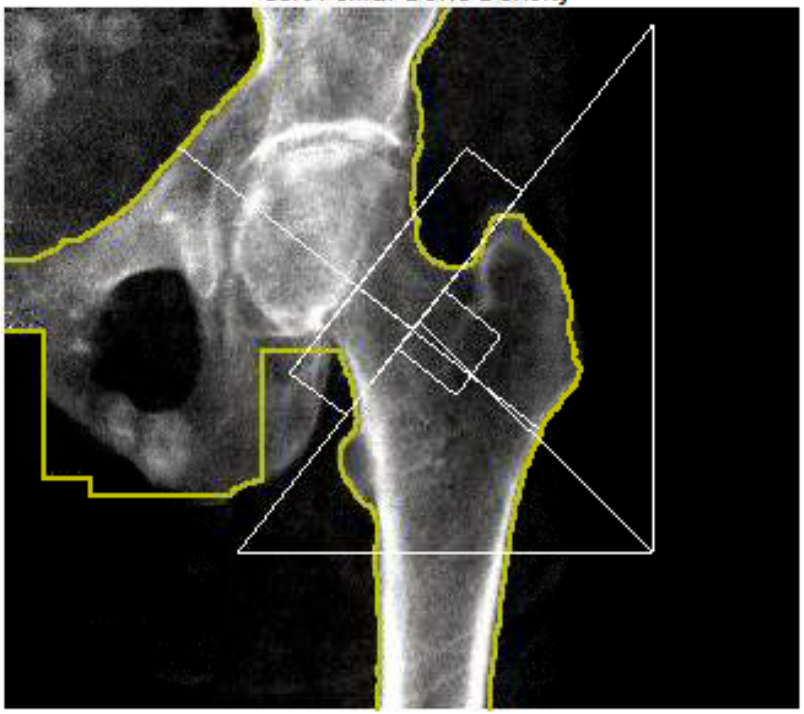
- Postmenopausal
- **Weight less than 57 kg**
- **Juvenile-onset rheumatoid arthritis**
- **Previous use of antiepileptic medication**
- **High falls risk due to ongoing seizures**
- **Previous use of glucocorticoids**
- **Weight loss of greater than 10% compared to age 25**

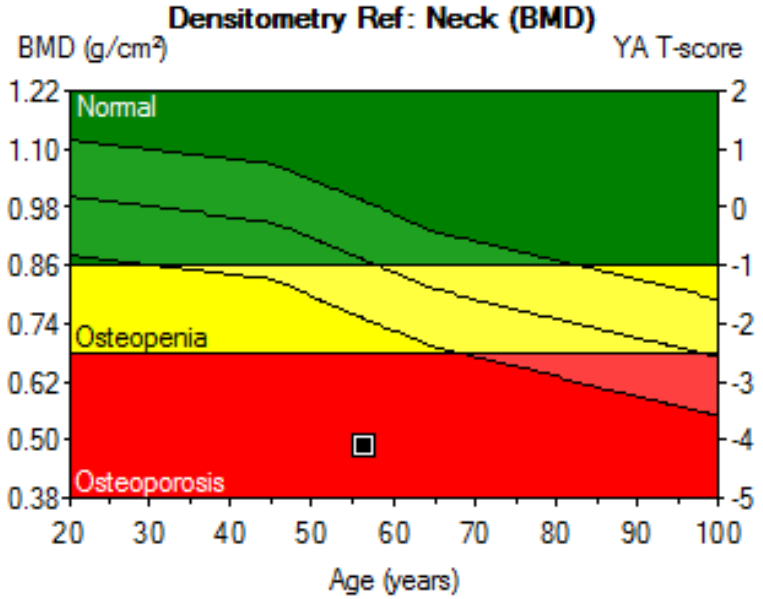
LVA Morphometry

Region [1]	Avg. Ht. [2] (cm)	Z-score	A/P Ratio [2] (%)	Z-score
T4	1.05	-3.8	114	3.0
T5	1.17	-2.8	75	-2.8
T6	1.09	-3.7	69	-3.3
T7	1.16	-3.4	78	-1.6
T8	1.02	-4.5	63	-4.1
T9	1.38	-2.2	95	0.3
T10	1.63	-1.1	90	-0.6
T11	1.79	-0.8	105	1.8
T12	2.14	0.5	90	-0.6
L1	2.35	0.9	109	2.2
L2	2.30	0.1	100	0.1
L3	2.00	-1.7	130	4.4
L4	2.30	-0.1	115	1.5

Severe Biconcavity
Moderate Compression

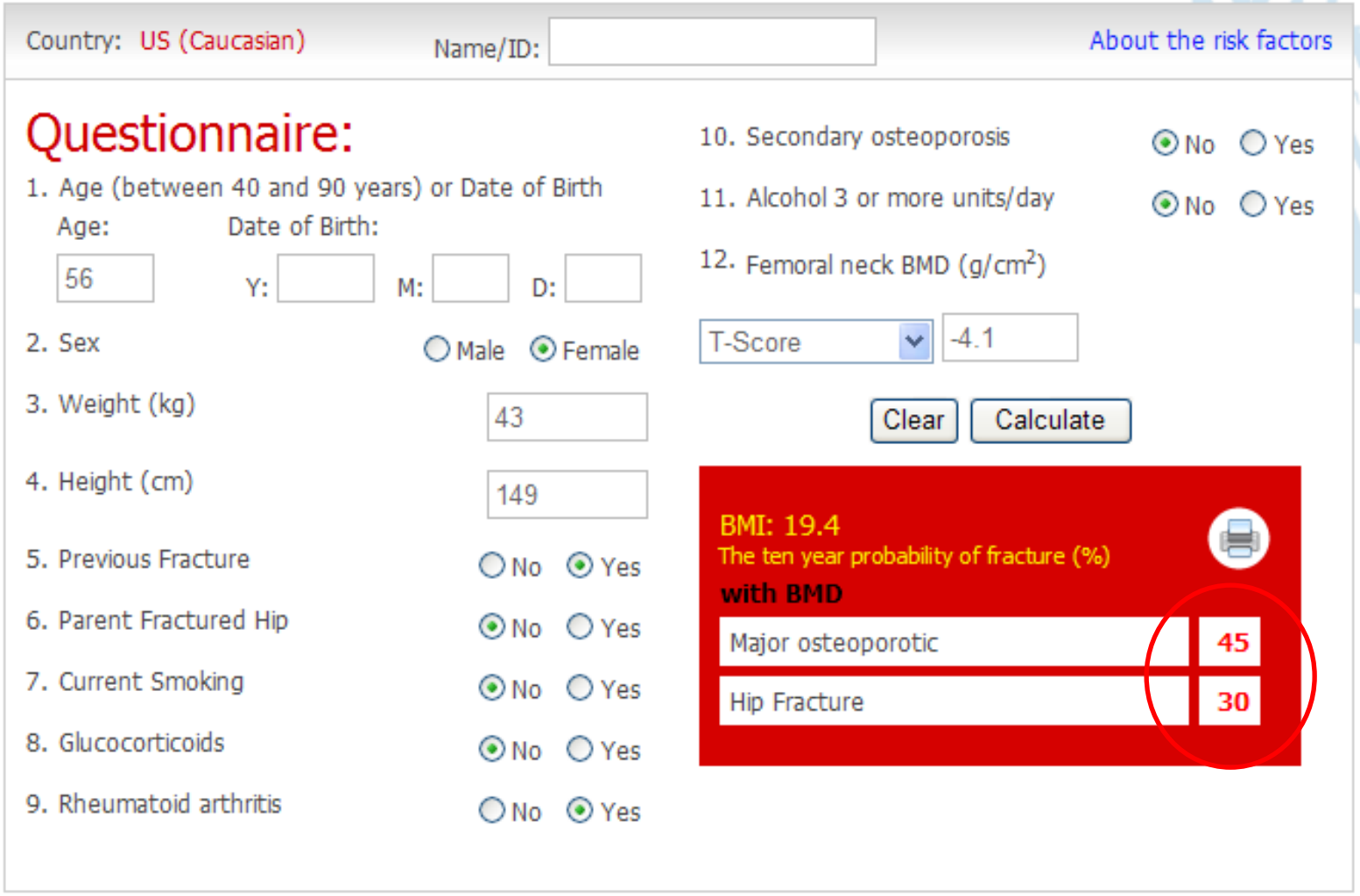
Left Femur Bone Density





Region	1 BMD (g/cm²)	2 Young-Adult (%)	2 Young-Adult T-score	3 Age-Matched (%)	3 Age-Matched Z-score
Neck	0.484	49	-4.1	56	-3.2
Upper Neck	0.366	45	-3.8	51	-2.9
Lower Neck	0.605	-	-	-	-
Wards	0.247	27	-5.1	33	-3.8
Troch	0.308	39	-4.4	41	-4.0
Shaft	0.515	-	-	-	-
Total	0.443	44	-4.6	48	-4.0

FRAX


Country: US (Caucasian)
Name/ID:
About the risk factors
Questionnaire:
1. Age (between 40 and 90 years) or Date of Birth
Age:
Date of Birth:
56
Y:
M:
D:
2. Sex
Male
Female
3. Weight (kg)
43
4. Height (cm)
149
5. Previous Fracture
No
Yes
6. Parent Fractured Hip
No
Yes
7. Current Smoking
No
Yes
8. Glucocorticoids
No
Yes
9. Rheumatoid arthritis
No
Yes
10. Secondary osteoporosis
No
Yes
11. Alcohol 3 or more units/day
No
Yes
12. Femoral neck BMD (g/cm2)
T-Score
-4.1
Clear
Calculate
BMI: 19.4
The ten year probability of fracture (%)
with BMD
Major osteoporotic
45
Hip Fracture
30

Laboratory Results

- **Serum C-telopeptide is 1392 ng/L (elevated)**
- Investigations normal: Serum protein electrophoresis, celiac screen, TSH, intact PTH, LFT, electrolytes, CBC, vit D

Treatment Recommendations

- Vit D 1000 IU through a supplement
- Calcium 1200 mg through diet + supplements
- Wt-bearing , postural strengthening. Some risk: **excess spinal stresses to be avoided**
- Falls Prevention
- **Rx: -indication for anabolic or other treatment depending on patient desire**

  -discuss compliance and pt attitudes in FLS…..

6 months after vertebral fracture

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