**Who should be tested?**

Definite indications in postmenopausal women (PM):
- * age ≥ 65 years
- * Vertebral deformity or fragility fracture
- * Demineralization by X-rays
- * Corticosteroid therapy more than 3 months

Definite indications in men:
- * Hypogonadism
- * Corticosteroid therapy more than 3 months
- * Vertebral deformity or fragility fracture
- * Demineralization by X-rays

Less definite indications:
- * PM women ≤ 65 years with risk factors
- * Subjects with conditions that cause bone loss

No indications to be tested:
- * Premenopausal healthy cycling women
- * Healthy men

**What measures to use?**

**Diagnostic Measurements:**
- Central DXA, most established technology
- Spine and hip for all patients, add forearm in select situations (hyperparathyroidism, obesity, prosthesis)
- Lowest T-score of any site to diagnose osteoporosis
- Western database for the spine
- Use NHANES reference curve for the hip

**Follow-up Measurements:**
- Same machine, model, with strict quality assurance
- Follow-up spine, if not possible then hip
- Usual time between two measures 1.5 - 2 years
- Significance of serial change over time to be derived from center specific precision measures

[http://www.iscd.org/visitors/resources/calc.cfm?fromResources=7](http://www.iscd.org/visitors/resources/calc.cfm?fromResources=7)

**When to treat?**

Definite indications in postmenopausal women (PM):
- * Low BMD and history of fragility fracture
- * T-score ≤ -2.5
- * Corticosteroid for more than 3 months and a T-score ≤ -1.5

Definite indications in men:
- * Low BMD and history of fragility fracture
- * Age > 70 years with a T-score ≤ -2.5
- * Corticosteroid for more than 3 months and a T-score ≤ -1.5

Less definite indications:
- * PM women or men with T-score between -1 and -2.5
- * Men < 70 with a T-score ≤ -2.5

No indications to be treated:
- * Premenopausal healthy women or young men with a T-score between -1 and -2.5
Which database should be used: western or local universal database?
- Western densitometer database for the spine
- NHANES reference curve for the hip
- RR/SD decrease in BMD same as western standards

Should a gender-specific database used in men?
- Use gender-specific western database for men for T-score derivation

How many skeletal site(s) should be measured?
- Spine (L1-L4) and hip for subjects < 65 years
- Hip only > 65 years
- Add forearm in select situations: hyperparathyroidism, obesity, prosthesis
- Use lowest T-score of all sites to diagnose osteoporosis.

Recommendations in premenopausal women.
- WHO T-score bases diagnosis of OP does not apply
- Consider diagnosis of osteoporosis if there are:
  - Secondary causes (e.g., glucocorticoid therapy, hypogonadism, hyperparathyroidism).
  - Risk factors for fracture
  - Presence of a fragility fracture.

This 1st Update provides basis to align the Lebanese guidelines with the WHO universal fracture risk assessment model.

The Lebanese Guidelines for Osteoporosis Assessment and Treatment were endorsed by:
- The Lebanese Society of Endocrinology
- The Lebanese Society of Obstetrics and Gynecology
- The Lebanese Society of Radiology
- The Lebanese Society of Rheumatology
- The Lebanese Association of Orthopedics
- World Health Organization
- The Lebanese Ministry of Health