Survivorship – Gynecologic Cancer: Bone Health

**Baseline BMD and 25-OH Vitamin D**

- **Age greater than or equal to 50 years or post-menopausal with any risk factor?**
  - **Yes**
    - BMD normal
      - (T-score greater than or equal to -1.0)
      - **Repeat in 2 years**
      - **Reinforce universal recommendations**
    - BMD abnormal
      - (T-score between -1.0 and -2.5)
      - **Consider medical therapy based on risk factors (FRAX)**
      - **Reinforce universal recommendations**
  - **No**
    - BMD abnormal
      - (T-score less than or equal to -2.5)
      - **Start medical therapy**
      - **Reinforce universal recommendations**
    - 25-OH Vitamin D abnormal
      - (less than 30 ng/mL)
      - **Ergocalciferol 50,000 units once a week for 8 weeks, then continue once a month**
      - **Reinforce universal recommendations**

**Medical therapy chosen**

- **Repeat BMD in 1 year**
- **Repeat BMD in 2 years**
- **Medical therapy not initiated**

**25-OH Vitamin D abnormal?**

- **Yes**
  - **Vitamin D abnormal?**
    - **Yes**
      - **Refer to Bone Health Specialist**
    - **No**
      - **Continue ergocalciferol 50,000 units once a month**
  - **No**
    - **BMD stable?**
      - **Yes**
        - **Repeat BMD in 2 years**
      - **No**
        - **Medical therapy not initiated**

**BMD normal**

- **Repeat in 2 years**
- **Reinforce universal recommendations**

**BMD abnormal**

- **Consider medical therapy based on risk factors (FRAX)**
- **Reinforce universal recommendations**

**Universal recommendations:**

- **Calcium 1,200 mg/day**
- **Vitamin D 800 units/day**
- **Exercise (see Physical Activity algorithm)**
- **Avoid tobacco (see Tobacco Cessation algorithm)**
- **Limit alcohol**
- **Limit caffeine**

**FRAX – Fracture Risk Assessment Tool at www.shef.ac.uk/frax**

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**Disclaimer:** This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson’s specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient’s care. This algorithm should not be used to treat pregnant women.

BMD = bone mineral density

1. **Risk factors:**
   - Low body weight
   - Family history of hip fracture
   - History of prior steroid use of 3 months or longer
   - Rheumatoid arthritis

2. **25-OH Vitamin D:** 25-hydroxyvitamin D (hydroxycholecalciferol, calcidiol), the main vitamin D circulating in plasma

3. **Stable BMD:** Same T-score or improvement

4. **Abnormal BMD:** Osteopenia T-score between -1.0 and -2.5
   - Osteoporosis T-score less than or equal to -2.5

5. **FRAX:** Fracture Risk Assessment Tool at www.shef.ac.uk/frax

6. **Consider bisphosphonate, denosumab, raloxifene or if clinically indicated**
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SUGGESTED READINGS


The University of Sheffield. (n.d.). Welcome to FRAX. Retrieved from https://www.sheffield.ac.uk/FRAX/

This survivorship algorithm is based on majority expert opinion of the Gynecologic Survivorship work group at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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