PRESENTATION

- Post-menopausal women
- Pre-menopausal on tamoxifen or GnRH
- Women on aromatase inhibitors

Baseline BMD, 25-OH vitamin D

TREATMENT

- Repeat tests in 2 years
- Reinforce universal recommendations

25-OH Vitamin D greater than or equal to 30 ng/mL and BMD normal (T-score greater than or equal to -1.0)

BMD abnormal (T-score less than -1.0 to -2.4)

BMD abnormal (T-score less than or equal to -2.5)

25-OH Vitamin D abnormal (less than 30 ng/mL)

- Reinforce universal recommendations
- Repeat DXA every 1-2 years
- Consider medical therapy or referral to bone health specialist based on risk factors (assess by FRAX)

Start bisphosphonates:
- Alendronate 70 mg po weekly, or
- Risedronate 35 mg po weekly or 150 mg po monthly, or
- Ibandronate 150 mg po monthly or 3 mg IV every 3 months, or
- Zoledronic acid 5 mg IV once a year (use institutional order set) or
- Start denosumab at 60 mg subcutaneously every 6 months (use institutional order set) or
- Refer to bone health specialist
- Reinforce universal recommendations
- If bone loss risks have changed significantly or major therapeutic intervention has been undertaken, obtain a 12 month follow up DXA

- Ergocalciferol 50,000 IU once a week for 8 weeks, then continue once a month, or
- Over the counter vitamin D3 1,000-2,000 IU daily
- Recheck vitamin D, calcium, and albumin on next visit
- Reinforce universal recommendations

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GnRH = Gonadotropin-releasing hormone  BMD = Bone Mineral Density  DXA = Dual-energy X-ray Absorptiometry  IU = International Units

1 25-hydroxyvitamin D, also known as 25-hydroxycholecalciferol, calcidiol or abbreviated as 25-OH Vitamin D, the main vitamin D metabolite circulating in plasma.

2 Universal recommendations:
- Elemental calcium 1,000 – 1,200 mg/day from all sources
- Vitamin D 800 – 1,000 IU/day
- Weight-bearing/muscle - strengthening exercises
- Avoid tobacco
- Limit alcohol
- Limit caffeine

3 Abnormal BMD: Osteopenia, T-score between -1.0 and -2.4; Osteoporosis, T-score less than or equal to -2.5

4 FRAX WHO Fracture Risk Assessment Tool at www.shef.ac.uk/frax

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Department of Clinical Effectiveness V5
Approved by the Executive Committee of the Medical Staff on 07/25/2017
SUGGESTED READINGS


Coleman, R., Wright, J., Houston, S., Agrawal, R., Purohit, O., Hayward, L., . . . BISMARK Investigators. (2012). Randomized trial of marker-directed versus standard schedule zoledronic acid for bone metastases from breast cancer. *Journal of Clinical Oncology*, 30(15)


This survivorship algorithm is based on majority expert opinion of the Breast 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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