evidence based guidelines

OSTEOPOROSIS FRACTURE PREVENTION

Screening

Order a BMD study (DXA) & complete a FRAX fracture risk assessment for:

- All women ≥65 years of age
- Postmenopausal women < 65 with presence of osteoporosis risk factors (see below)
- Men ≥ 70 years of age with risk factors (see below)

Osteoporosis risk factors:

- **Family history** of an osteoporotic fracture
- **Endocrine/Metabolic**: hyperparathyroidism, hyperthyroidism, hypogonadism, hypercortisolism
- **Nutritional/GI conditions**: alcohol abuse, eating disorders, calcium deficiency, vitamin D deficiency, chronic liver disease, malabsorption syndromes
- **Medications:** seizure meds, aromatase inhibitors, chemotherapy, immune suppressants, glucocorticoids (>3mo), lithium, GnRH agonists
- **Other:** chronic immobilization, thalassemia, rheumatoid arthritis, chronic kidney disease stages 3b-5, organ transplantation, hypercalciuria, ankylosing spondylitis, Marfan syndrome, Ehlers-Danlos syndrome

<table>
<tr><th>BMD T-score</th><th>Primary Care Treatment</th></tr>
<tr><td>Normal
-1.0 or above</td><td>Repeat DXA every 5 years or longer. Consider a shorter interval if at high risk</td></tr>
<tr><td rowspan="2">Low bone mass (Osteopenia)
-1.0 to -2.5</td><td>✓ Evaluate risk factors for Osteoporosis and address causes
✓ Correct calcium/vitamin D deficiency, if present
✓ Patient education on lifestyle, fall prevention, benefits and risks of medications
✓ Repeat DXA Screening every 2 years</td></tr>
<tr><td rowspan="2">Begin pharmacologic therapy for any of the following:
o Patients with BMD in the Osteo<u>porosis</u> range
o Patients with BMD in the Osteo<u>penia</u> range and one of the following
▪ FRAX 10-year probability of ≥20% for major osteoporotic fracture or ≥3% hip fracture
▪ Low-impact (fall from standing) vertebral or femur fracture (consider tx for other fracture sites)</td></tr>
<tr><td>Osteoporosis
-2.5 or below</td></tr>
</table>

Pharmacological therapy

- Begin with bisphosphonate: e.g. alendronate (po), risedronate (po), zoledronic acid (IV).
- Reassess BMD for response to bisphosphonate therapy every 1-2 years.
  - If response is <u>inappropriate</u> (more than 5% decline in BMD): switch from oral to IV bisphosphonate, screen for secondary causes, or refer to Bone Health Clinic
  - If response is <u>appropriate</u> and patient is still in the recommended treatment range (see above):
    - ∗ Continue treatment for up to 5 years of oral bisphosphonate and 3 years of IV bisphosphonate.
    - ∗ After this length of time consider alternative treatment and/or refer to Bone Health Clinic
    - ∗ Longer duration bisphosphonate (max. 10y-oral, 6y-IV) increases the risk of osteonecrosis of the jaw (ONJ) and atypical femur fracture but may be considered if patient is a non-smoker, has good dentition, and no planned dental procedures
  - Once BMD is no longer in treatment range, stop medication and repeat DXA in 2 years

Refer to Bone Health Clinic if:

- Very high-risk patient: BMD ≤ -3.5
- Treatment failure with bisphosphonate [eg. contraindication, intolerable side effect, inappropriate response (see above), recurrent fracture while on treatment, BMD in treatment range despite reaching maximum duration of treatment (see above)]

<u>With your referral please include:</u> DXA and vitamin D within 2 years and calcium, creatinine, CBC and parathyroid hormone within 1 year.

<u>Note:</u> If a patient receiving Prolia experiences a treatment delay of 4 months or more - restart an alternative ASAP to prevent a 4-fold increased risk of vertebral fractures.

holland pho
Physician Hospital Organization

APPROVED BY:
Quality & Care Management Committee, Holland Physician Hospital Organization
Approved: 02/24/2022