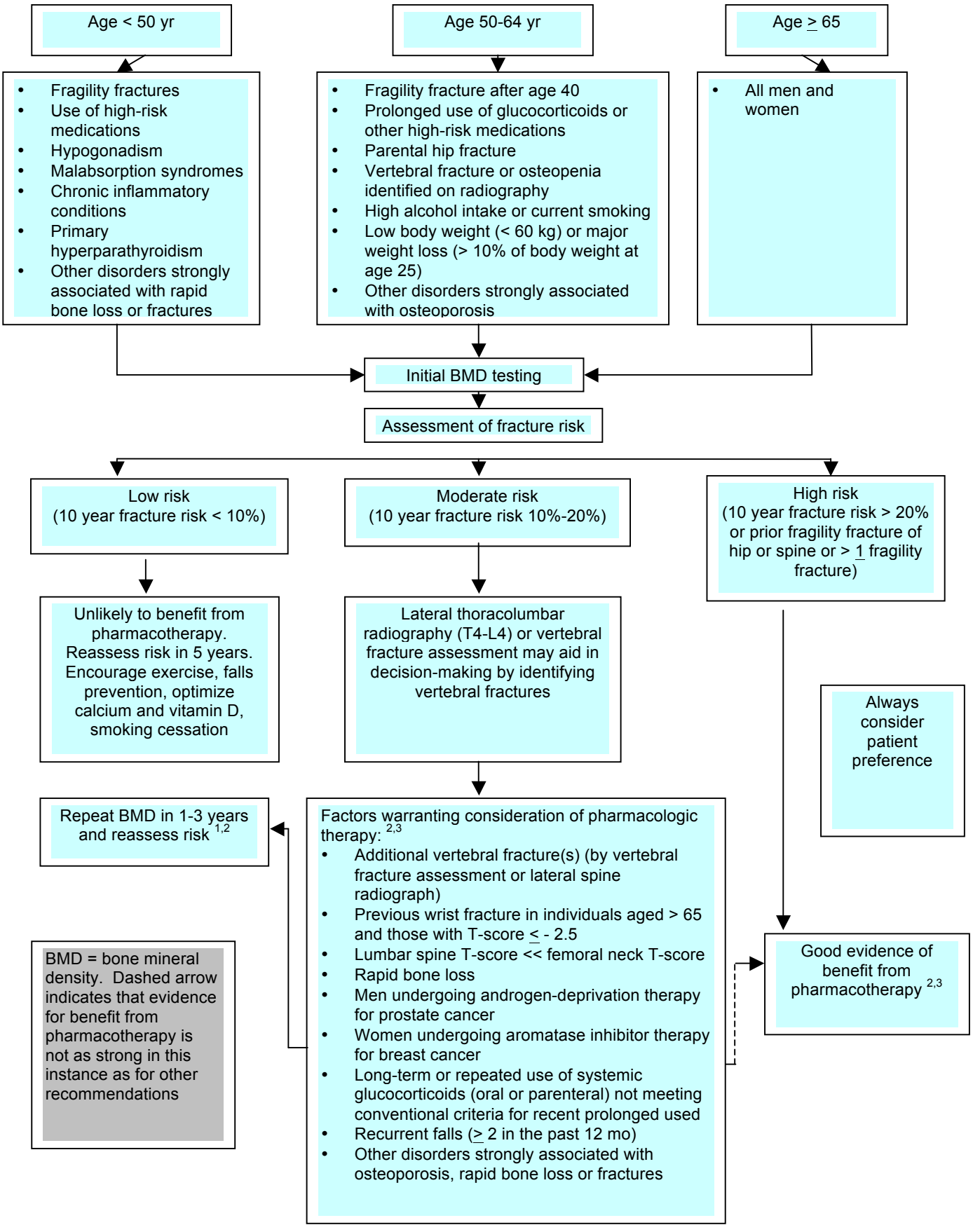
KEMPTVILLE
District HOSPITAL

Integrated Management of Osteoporosis Risk

June 2012

Encourage basic bone health for all individuals over age 50, including regular active weight-bearing exercise, calcium (diet and supplements) 1200 mg daily, vitamin D 800-2000 IU (20-50 mcg) daily and fall-prevention strategies.



Footnotes

1. Bone Mineral Densitometry Testing – MOHLTC Coverage

Baseline BMD	High Risk	Low Risk	Low Risk (3rd + Test)
Only can use this code once in a lifetime	High risk patients can have a BMD once every 12 months	Patients are low risk if they don't fit the other 2 categories. Can have a repeat BMD once every 36 months	**NEW** July 2010 3rd and subsequent tests no earlier than 60 months after previous test

High Risk Definition for MOHLTC:

At risk for accelerated bone loss:

- ✓ Previous diagnosed Osteoporosis or Osteopenia (Reduced Bone Density)
- ✓ Fragility fracture (vertebral compression fracture or low trauma fracture) after age 40
- ✓ Family history of Osteoporosis (especially maternal hip fracture)
- ✓ Glucocorticoid therapy greater than or equal to 3 months cumulative therapy during the preceding year at a prednisone-equivalent dose greater than or equal to 7.5 mg daily (prednisone, cortisone)
- ✓ Early menopause (before age 45) (hysterectomy with both ovaries completely removed)
- ✓ Malabsorption syndrome
- ✓ Hypogonadism
- ✓ Hyperparathyroidism
- ✓ Osteopenia apparent on x-ray
- ✓ Rheumatoid arthritis
- ✓ Patient on Bisphosphonates or other treatment for Osteoporosis
- ✓ Patients with breast cancer and treated with aromatase inhibitors
- ✓ Patient on Prostate Cancer androgen suppressant therapy
- ✓ Chronic anticonvulsant therapy
- ✓ Bone loss in excess of 1% per year as demonstrated by previous BMD test

2. Exercise and Prevention of Falls

- Exercises involving resistance training appropriate for the individual's age and functional capacity and/or weight-bearing aerobic exercises are recommended for those with osteoporosis or at risk for osteoporosis (grade B).
- Exercises to enhance core stability and thus to compensate for weakness or postural abnormalities are recommended for individuals who have had vertebral fractures (grade B).
- Exercises that focus on balance, such as tai chi, or on balance and gait training should be considered for those at risk of falls (grade A).
- Use of hip protectors should be considered for older adults residing in long-term care facilities who are at high risk for fracture (grade B).

Calcium and Vitamin D:

- The total daily intake of elemental calcium (through diet and supplements) for individuals over age 50 should be 1200 mg (grade B).

- For healthy adults at low risk of vitamin D deficiency, routine supplements with 400-1000 IU (10-25 mcg) vitamin D, daily is recommended (grade D).
- For adults over 50 at moderate risk of vitamin D deficiency, supplementation with 800-1000 IU (20-25 mcg) vitamin D, daily is recommended. To achieve optimal vitamin D status, daily supplementation with more than 1000 IU (25 mcg) may be required. Daily doses up to 2000 IU (50 mcg) are safe and do not necessitate monitoring (grade C).
- For individuals receiving pharmacologic therapy for osteoporosis, measurement of serum 25-hydroxyvitamin D should follow three to four months of adequate supplementation and should not be repeated if an optimal level (greater than or equal to 75 nmol/L) is achieved (grade D.)

3. Pharmacologic Therapy

- For menopausal women requiring treatment of osteoporosis, alendronate, risedronate, zoledronic acid and denosumab can be used as first-line therapies for prevention of hip, nonvertebral and vertebral factures (grade A).
- For menopausal women requiring treatment of osteoporosis, raloxifene can be used as a first-line therapy for prevention of vertebral factures (grade A).
- For menopausal women requiring treatment of osteoporosis in combination with treatment for vasomotor symptoms, hormone therapy can be used as a first-line therapy for prevention of hip, nonvertebral and vertebral fractures (grade A).
- For menopausal women intolerant of first-line therapies, calcitonin or etidronate can be considered for prevention of vertebral factures (grade B.)
- For men requiring treatment of osteoporosis, alendronate, risedronate and zoledronic acid can be used as first-line therapies for prevention of fractures (grade D.)
- Testosterone is not recommended for the treatment of osteoporosis in men (grade B.).

Special Groups:

- For individuals over age 50 who are on long-term glucocorticoid therapy (greater than or equal to three month cumulative therapy during the preceding year at a prednisone-equivalent dose greater than or equal to 7.5 mg daily), a bisphosphonate (alendronate, risedronate, zoledronic acid) should be initiated at the outset and should be continued for at least the duration of the glucocorticoid therapy (grade A).
- Teriparatide should be considered for those at high risk for fracture who are taking glucocorticoids (greater than or equal to three months cumulative therapy during the preceding year at a prednisone-equivalent dose greater than or equal to 7.5 mg daily) (grade A.).
- For long-term glucocorticoid users who are intolerant of first-line therapies, calcitonin or etidronate may be considered for preventing loss of bone mineral density (grade B).
- Women who are taking aromatase inhibitors and men who are undergoing androgen-deprivation therapy should be assessed for fracture risk and osteoporosis therapy to prevent fractures should be considered (grade B)

References

2010 Clinical Practice Guidelines for the Diagnosis and Management of Osteoporosis in Canada Summary
Ontario MOHLTC Funding for BMD Testing, 2012