OBJECTIVE

Alberta clinicians will understand who and how to screen, assess, diagnose, treat and manage osteoporosis and/or fracture risk.

TARGET POPULATION

All men and women 50 years of age and older

EXCLUSIONS

All men and women under 50 years of age

This guideline is partially adapted from Papaioannou A, Morin S, Cheung AM, et al; for the Scientific Advisory Council of Osteoporosis Canada. 2010 clinical practice guidelines for the diagnosis and management of osteoporosis in Canada: Summary. CMAJ. 2010;182:1864-73.

KEY MESSAGES

- The goal is to find patients at high risk of fracture, not just low bone mineral density (BMD) (see Screening and Treatment for Osteoporosis and Fracture Risk Algorithm on page 2).
    - Suggested 10-year fracture risk assessment tools:
        - CAROC: http://www.osteoporosis.ca/multimedia/FractureriskTool/index.html#.Home
        - FRAX: www.sheffield.ac.uk/FRAX/tool.jsp?country=19
- BMD results and repeated testing alone provide little if any value to drive long term management decisions. BMD should be used as a supporting tool only.
- For those patients previously diagnosed with osteoporosis, assess and manage based on the patient's absolute risk of osteoporosis-related fractures.
- Patients with a past fragility fracture have a higher risk for future fractures.
- Lifestyle modification and pharmacologic therapy recommendations may need to be individualized.

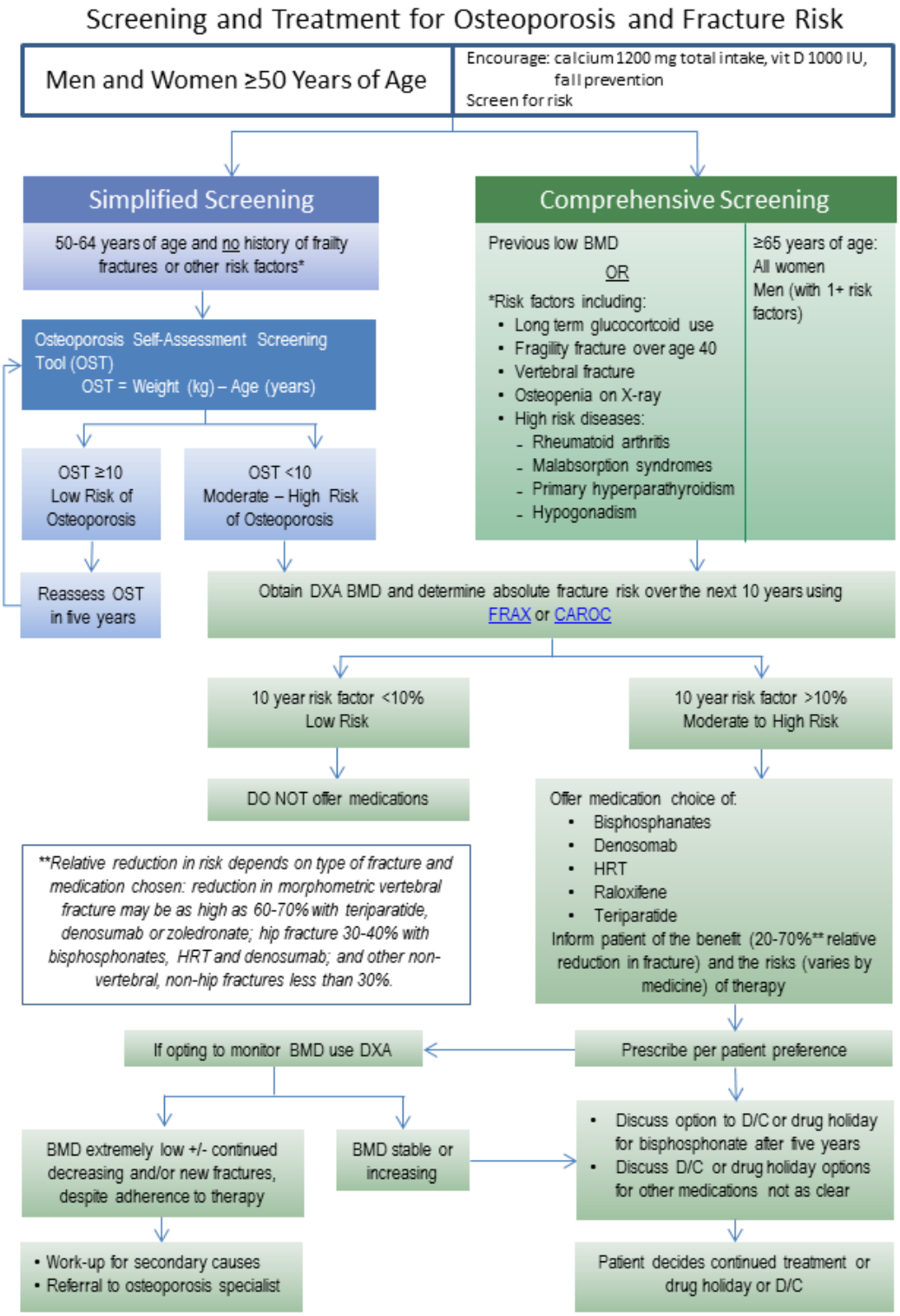
PREVENTION STRATEGIES

- ✓ Vitamin D intake: 1000 IU supplement daily
- ✓ Exercise, awareness of falls and fall prevention
- ✓ Smoking cessation and reduction in alcohol use to less than three drinks per day
- ✓ Calcium intake: 1200mg/day from all sources

IMPLEMENTATION CONSIDERATIONS

- Consider flagging patients 50 years of age and older to screen with the OST tool for possible risk of osteoporosis and need for further (BMD) testing and fracture risk assessment.

ALGORITHM


Screening and Treatment for Osteoporosis and Fracture Risk
Men and Women ≥50 Years of Age
Encourage: calcium 1200 mg total intake, vit D 1000 IU, fall prevention
Screen for risk
Simplified Screening
50-64 years of age and no history of frailty fractures or other risk factors*
Osteoporosis Self-Assessment Screening Tool (OST)
OST = Weight (kg) – Age (years)
OST ≥10
Low Risk of Osteoporosis
OST <10
Moderate – High Risk of Osteoporosis
Reassess OST in five years
Comprehensive Screening
Previous low BMD
OR
*Risk factors including:
Long term glucocortcoid use
Fragility fracture over age 40
Vertebral fracture
Osteopenia on X-ray
High risk diseases:
Rheumatoid arthritis
Malabsorption syndromes
Primary hyperparathyroidism
Hypogonadism
≥65 years of age:
All women
Men (with 1+ risk factors)
Obtain DXA BMD and determine absolute fracture risk over the next 10 years using FRAX or CAROC
10 year risk factor <10%
Low Risk
DO NOT offer medications
10 year risk factor >10%
Moderate to High Risk
Offer medication choice of:
Bisphosphanates
Denosomab
HRT
Raloxifene
Teriparatide
Inform patient of the benefit (20-70%** relative reduction in fracture) and the risks (varies by medicine) of therapy
**Relative reduction in risk depends on type of fracture and medication chosen: reduction in morphometric vertebral fracture may be as high as 60-70% with teriparatide, denosumab or zoledronate; hip fracture 30-40% with bisphosphonates, HRT and denosumab; and other non-vertebral, non-hip fractures less than 30%.
Prescribe per patient preference
If opting to monitor BMD use DXA
BMD extremely low +/- continued decreasing and/or new fractures, despite adherence to therapy
BMD stable or increasing
Discuss option to D/C or drug holiday for bisphosphonate after five years
Discuss D/C or drug holiday options for other medications not as clear
Work-up for secondary causes
Referral to osteoporosis specialist
Patient decides continued treatment or drug holiday or D/C