Evaluate for causes of secondary osteoporosis

Correct calcium/vitamin D deficiency and address causes of secondary osteoporosis

- Recommend pharmacologic therapy
- Education on lifestyle measures, fall prevention, benefits and risks of medications

High risk/no prior fractures**
- Alendronate, denosumab, risedronate, zoledronate***
- Alternate therapy: Ibandronate, raloxifene

Very high risk/prior fractures**
- Abaloparatide, denosumab, romosozumab, teriparatide, zoledronate***
- Alternate therapy: Alendronate, risedronate

Reassess yearly for response to therapy and fracture risk

Increasing or stable BMD and no fractures
- Consider a drug holiday after 5 years of oral and 3 years of IV bisphosphonate therapy
- Resume therapy when a fracture occurs, BMD declines beyond LSC, BTM's rise to pretreatment values or patient meets initial treatment criteria

Progression of bone loss or recurrent fractures
- Assess compliance
- Re-evaluate for causes of secondary osteoporosis and factors leading to suboptimal response to therapy
- Switch to injectable antiresorptive if on oral agent
- Switch to abaloparatide, romosozumab, or teriparatide if on injectable antiresorptive or at very high risk of fracture
- Factors leading to suboptimal response

Denosumab
- Continue therapy until the patient is no longer high risk and ensure transition with another antiresorptive agent

Romosozumab for 1 year
- Sequential therapy with oral or injectable antiresorptive agent

Abaloparatide or teriparatide for up to 2 years
- Sequential therapy with oral or injectable antiresorptive agent

Zoledronate
- • If stable, continue therapy for 6 years****
- • If progression of bone loss or recurrent fractures, consider switching to abaloparatide, teriparatide or romosozumab

** Indicators of very high fracture risk in patients with low bone density would include advanced age, frailty, glucocorticoids, very low T scores, or increased fall risk.

*** Medications are listed alphabetically.

**** Consider a drug holiday after 6 years of IV zoledronate. During the holiday, an anabolic agent or a weaker antiresorptive such as raloxifene could be used.

* 10 year major osteoporotic fracture risk ≥ 20% or hip fracture risk ≥ 3%. Non-US countries/regions may have different thresholds.

ABBREVIATIONS GUIDE
BMD – bone mineral density
LSC – least significant change
BTM – bone turnover marker

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