

Follow **Romosozumab** flowchart**Consult osteoporosis specialist**

*The following flowchart is for informational purposes as romosozumab should be prescribed by osteoporosis experts*

Is the patient a man or have a history of:

- Myocardial infarction or stroke in the past year
- High risk of coronary artery disease

Yes

No

**Do not use Romosozumab**

Has black box warning for potential increased risk of MACE  
Has not been approved for use in men.

Is the patient high risk for hypocalcemia from Romosozumab?

- eGFR <30
- Vitamin D <30 ng/mL
- Hypocalcemia

Replete vitamin D and calcium;  
Discuss with nephrologist as appropriate

**Initiate Romosozumab**

210 mg monthly subcutaneous injections for 12 months

After 1 year, therapy is completed.

- Switch to another antiresorptive agent
- Obtain updated bone density scan

Follow **bisphosphonate** flowchartFollow **denosumab** flowchart

Antiresorptive switch required. Options:

**Bisphosphonates**

- Oral (5 years): Alendronate 70 mg weekly (or 10 mg daily) or Risedronate 35 mg weekly (or 150 mg monthly)
  - IV (3 years): Zoledronic acid 5 mg yearly
- Denosumab:** 60 mg SQ every 6 months

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Romsozumab is a sclerostin inhibitor. ([JCEM 2020 Guidelines](#) – Romosozumab update, Romosozumab [package insert](#))

Romsozumab is the most novel medication for osteoporosis gaining FDA approval in 2019 and being incorporating in JCEM guidelines in 2020.

- It should be considered as a first line agent for patients with multiple vertebral fractures or hip fracture and an osteoporotic BMD or for those who failed antiresorptive medications
- The medication is extremely potent
  - Example: 73% reduction in risk of vertebral fractures after 1 year!

In clinical trials there was an increased risk of major adverse cardiovascular events in romosozumab compared to the alendronate treated group.

- Led to a black box warning that there may be an increased risk of myocardial infarction, stroke, or cardiovascular death and that it should not be used in patients who had a myocardial infarction or stroke in the past year.
- More studies are needed if this is due to a romosozumab effect or protective alendronate effect

**Because Romosozumab is novel and expensive, the medication should be prescribed by an osteoporosis expert.** Those who are not experts should still be aware of its use and potential to consider consultation.

- It is administered by a healthcare provider in two separate syringes totaling 210 mg once per month to the abdomen, thigh, or upper arm once monthly for 12 months.

Romsozumab should be switched after 1 year of therapy to an alternative antiresorptive agent such as bisphosphonates or denosumab. If those cannot be tolerated raloxifene or menopausal hormone therapy is acceptable