





## EFFICACY OF ROMOSOZUMAB IN THE TREATMENT OF OSTEOPOROSIS: A SYSTEMATIC REVIEW.

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## **BACKGROUND**

To analyze the possible efficacy of romosozumab in the treatment of osteoporosis

# **MATERIALS AND METHODS**

A PUBMED DATABASE RESEARCH WAS PERFORMED USING THE DESCRIPTORS "osteoporosis" AND "romosozumab" IN THE "ADVANCED" SEARCH STRATEGY, CHOOSING THE "AND" CONNECT BETWEEN THE TWO DESCRIPTORS. AFTER, IT HAS BEEN SELECTED ONLY ITEMS ONLY OF THE LAST 5 YEARS. AFTER THOSE FILTERS, 118 ARTICLES WERE FOUND, AND THE TOP 20 WERE SELECTED, WHEN CLASSIFIED IN "BEST MATCH" ORDER.

#### **RESULTS**

Romosozumab is a human monoclonal antibody that binds to sclerostin, allowing the involvement of Wnt ligands with their co-receptors, resulting in an increase in bone formation and bone mineral density. Many studies are analyzing its effectiveness in the treatment of osteoporosis.

In some studies, romosozumab, compared to placebo, has been shown to reduce vertebral fractures by 73% after 1 year of treatment. Romosozumab has significant potential, by a new mechanism of action, to expand the ability to treat osteoporosis.

Some studies have compared romosozumab with Teriparida. Romosozumab led to gains in bone mineral density of the hip that were not observed with teriparatide. These data can inform clinical decisions for patients at high risk of fracture.

None of the studies analyzed could clearly determine any possible adverse effects of the use of romosozumab, however, in a first analysis the studies classified the adverse effects as insignificant in view of the benefits of using the drug.

A Study solling ET.AL study in the United States reported that the FDA (FOOD AND DRUG ADMINISTRATION) is examining possible side effects of romosozumab that could lead to cardiovascular damage to patients.

## CONCLUSION

Further studies are needed to determine the optimal scenario in which romosozumab can be used to optimize the treatment of osteoporosis.

It is important to note that many studies analyzed were funded by privately owned industries and, when analyzed, several biases were detected. Therefore, it is important to be aware of possible mercantilist interests in the development of this drug.