



Clinical Background

- A 53 year-old woman diagnosed with osteoporosis secondary to menopause comes to the clinic
- She is curious about treatment options after reading an article comparing the effectiveness of bisphosphonate and hormonal replacement therapy

P.I.C.O.

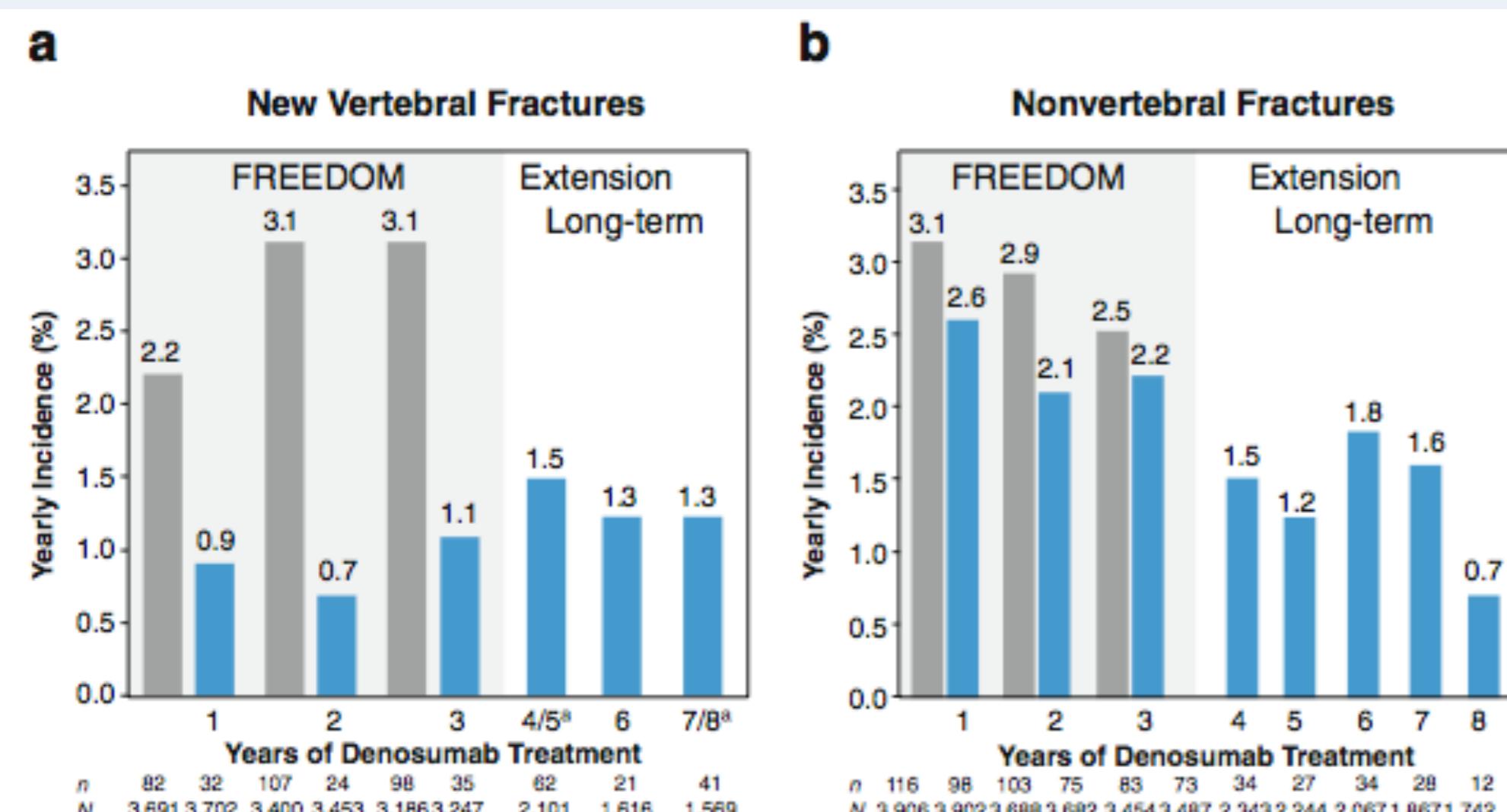
Population	Menopausal women
Intervention	Hormone replacement therapy
Control	Bisphosphonates
Outcome	Decreased Fractures

Methods and materials

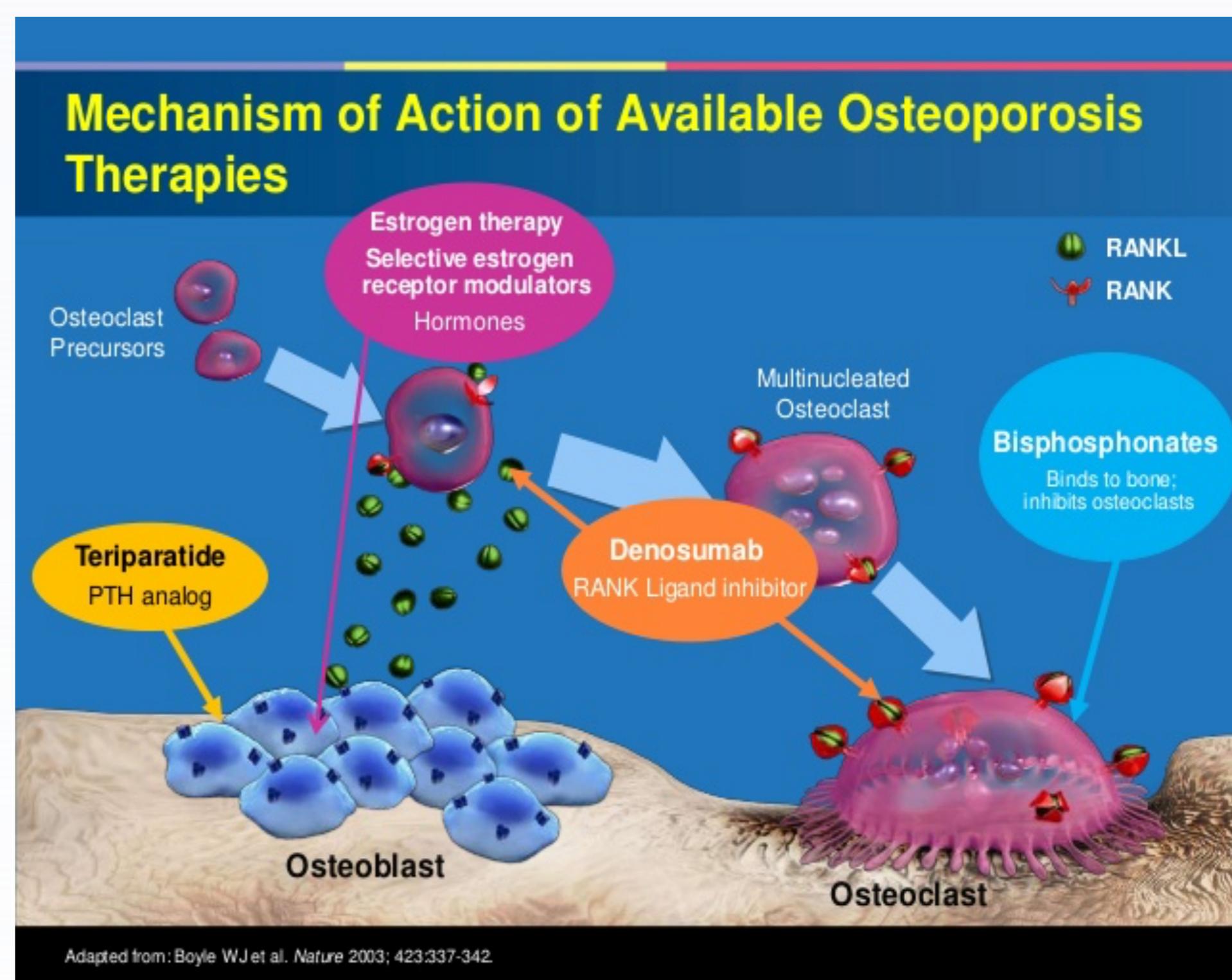
- Draw evidence from recent peer reviewed clinical studies
- Compare studies from different reputable institutions
- Resources
 - PubMed
 - Google Scholar

Results

- Freedom trial illustrated that 60mg Denosumab every 5 months for 36 months significantly reduced;
 1. new radiographic fractures by 68%
 2. clinically diagnosed vertebral fractures by 69%
 3. multiple new fractures by 61%



Raloxifene should be considered for younger postmenopausal women with osteoporosis, due to its benefit of preventing bone loss and reducing risk of vertebral fracture



Conclusion

- Bisphosphonates are considered the first line of choice for postmenopausal women secondary to osteoporosis, due to broad spectrum anti-fracture efficacy, compared to that of HRT.
- Patient was advised Bisphosphonates for best treatment option based on evidence
- She was also advised on the importance of regular monitoring to avoid potential side-effects and was booked in for a 6-month review.
- Patient returned for 6 months review and only complained of gastrointestinal symptoms

References

Osteoporosis: A Review of Treatment Options Kristie N. Tu, PharmD, BCPS, CGP, Janette D. Lie, PharmD, BCACP, Chew King Victoria Wan, PharmD Candidate, Madison Cameron, PharmD Candidate, Alaina G. Austel, PharmD Candidate, Jenny K. Nguyen, PharmD Candidate, Kevin Van, PharmD, and Diana Hyun, PharmD