

Theoretical framework essay example

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The Efficacy of Bisphosphonates in the Treatment of Osteoporosis in Post-Menopausal Women

Theoretical Framework:

The Efficacy of Bisphosphonates in the Treatment of Osteoporosis in Post-Menopausal Women

The theoretical model developed by Stadelmann (2008) will be used as the theoretical framework for investigating the efficacy of bisphosphonates in the treatment of osteoporosis in post-menopausal women. In addition, the Neuman Systems model (Walker & Neuman, 1996) will be used as the theoretical framework in determining how advanced practice nurses can promote wellness among post-menopausal osteoporosis patients through the use of bisphosphonate therapy.

Stadelmann's model was developed to address the limitation in the lifespan of total joint replacements. These implants are very successful in providing pain relief and in restoring the damaged joints' movement. However, the implant's stability in the long term is largely dependent on the preservation of the periprosthetic bone. In Stadelmann's model, the assumption was that the drug stimulus and the mechanical stimulus were independent. This model provided a rationale for the local rather than systemic use of bisphosphonate. It also showed that the local release of zoledronate increased the periprosthetic bone stock in sheep.

Neuman's model, on the other hand, indicates that "primary intervention as intervention focuses on retaining wellness and on the flexible line of defense" (Walker & Neuman, 1996, p. 103) and that when stressors penetrate the normal and flexible lines of defense, secondary prevention as

intervention should focus on strengthening the internal lines of resistance in order for wellness to be regained and reconstitution to be attained.

With the efficacy of bisphosphonates in bone adaptation as indicated in Stadelmann's model, this study aims to determine how bisphosphonate therapy can apply to the treatment of osteoporosis and how advanced practice nurses can effectively administer this treatment to promote wellness among osteoporosis patients in accordance to Neuman's model.

References

- Stadelmann, V. (2008). Prevention of micromotion-related periprosthetic bone loss using local release of bisphosphonate: Theoretical developments and experimental validations. École Polytechnique Fédérale De Lausanne, Switzerland. Retrieved from http://biblion.epfl.ch/EPFL/theses/2008/4157/EPFL_TH4157.pdf
- Walker, P. H. & Neuman, B. M. (1996). *Blueprint for Use of Nursing Models: Education, Research, Practice, and Administration*. New York, NY: Jones & Bartlett Learning.