

Title: Treatment of vitamin D deficiency with ergocalciferol: are current treatment guidelines adequate?

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Background: Vitamin D deficiency/insufficiency is common in the general population and may be associated with reduced bone mineral density, increased rates of hip fractures, and increased risk of death. Current treatment recommendations for vitamin D deficiency are ergocalciferol 50,000 International Units weekly for 6-8 weeks, followed by daily vitamin D supplementation. However, it is not clear whether the current guidelines for treatment of vitamin D deficiency and the recommended doses of ergocalciferol are adequate for correction of the deficiency. The aim of the present study is to examine the impact of vitamin D replacement, as recommended by the current guidelines, on 25-hydroxyvitamin D levels.

Hypothesis: The currently recommended treatment regimen for vitamin D deficiency (ergocalciferol 50,000 International Units weekly for 6-8 weeks, followed by daily vitamin D supplementation) will not be adequate for correction of the deficiency in the majority of patients with vitamin D deficiency.

Methods: The study has been approved by the UF Institutional Review Board to perform a retrospective review of medical charts for patients who visited the UF Internal Medicine clinic at Medical Plaza and extract information about (a) patient's gender, (b) baseline 25-hydroxyvitamin D level, (c) vitamin D prescription/treatment recommendations, (d) post-treatment 25-hydroxyvitamin D level, and (e) other pertinent laboratory values (sodium, chloride, potassium, calcium, phosphorus, blood urea nitrogen (BUN), serum creatinine, intact PTH, and albumin).

Role of Medical Student: UF IRB has approved this study. After consultation with the faculty mentor, the MSRP student will perform chart review, data analysis, literature review, and preparation of at least one first-authored abstract and manuscript. Students may continue their collaboration throughout medical school.