

### Selección de Resúmenes de Menopausia

Semana del 13 al 19 de marzo de 2019 María Soledad Vallejo. Clínica Quilín. Universidad de Chile

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A systematic review and meta-analysis of the response of serum 25-hydroxyvitamin D concentration to vitamin D supplementation from RCTs from around the globe.

Mo M, Wang S, Chen Z, Muyiduli X, Wang S, Shen Y, Shao B, Li M, Chen D, Chen Z, Yu Y.

BACKGROUND/OBJECTIVES: Optimal doses of vitamin D (VitD) supplement in different populations are unclear. We aim to evaluate the relationship between VitD supplementation and post-intervention serum 25-hydroxyvitamin D [25(OH)D] concentration, to provide a recommended dosage of VitD for achieving an optimal 25(OH)D concentration for different populations. SUBJECTS/METHODS: Literature search was conducted in Embase, etc. Randomized controlled trials about VitD supplemental intakes and their effect on 25(OH)D concentration were enrolled. The effect on 25(OH)D concentration between different supplementation doses in each population group was compared by metaanalysis. Multivariate meta-regression model is utilized to establish reference intake dosage of VitD. RESULTS: A total of 136 articles were included about children (3-17 years), adults (18-64 years), postmenopausal women, the elderly (>64 years), pregnant, or lactating women. Overall, intervention groups obtained higher 25(OH)D concentration than controls and there was obvious dose-response effect between intake dose and 25(OH)D concentration. Baseline 25(OH)D concentration and age were significant indicators for 25(OH)D concentration. To reach sufficient 25(OH)D concentration (75 nmol/L), the recommended VitD supplemental intakes was 1340 and 2250 IU/day for children and pregnant women, 2519 and 797 IU/day for European adults aged 18-64 and 65-85 years. 729, 2026, and 1229 IU/day for adults in North America, Asia and Middle East and Africa, respectively. CONCLUSIONS: Regional- and age-specific recommended dosages of VitD supplements for population to achieve optimal 25(OH)D concentrations have been suggested.

#### Arch Osteoporos. 2019 Mar 13;14(1):38. doi: 10.1007/s11657-019-0591-4.

## Stages of sarcopenia, bone mineral density, and the prevalence of osteoporosis in older women.

Lima RM, de Oliveira RJ, Raposo R, Neri SG2, Gadelha AB.

A better understanding of the relationship between osteoporosis and sarcopenia may help to develop effective preventive and therapeutic strategies. In the present study, the association between different stages of sarcopenia, BMD, and osteoporosis was examined. The salient findings indicate that a dose-response relationship exists between sarcopenia stages and bone-related phenotypes. PURPOSE: To assess the association between sarcopenia stages, bone mineral density (BMD), and the prevalence of osteoporosis in older women. METHODS: Two hundred thirty-four women (68.3 ± 6.3 years) underwent body composition and BMD measurements using dual-energy X-ray absorptiometry. Quadriceps isokinetic torque was evaluated, and the timed up-and-go test was conducted as a measure of function. Sarcopenia stages were classified according to European Working Group on Sarcopenia in Older People (EWGSOP): nonsarcopenia, presarcopenia, sarcopenia, and severe sarcopenia. Osteoporosis was defined as BMD value (hip or spine) 2.5 standard deviations below a young-adult reference population. Between-group differences were examined using ANOVA for continuous variables and chi-squared for categorical variables. Logistic regression was performed to evaluate the association between sarcopenia stages and osteoporosis. RESULTS: Rates of osteoporosis were 15.8%, 19.2%, 35.3%, and 46.2% for nonsarcopenia, presarcopenia, sarcopenia, and severe sarcopenia, respectively (P = 0.002). Whole-body and femoral neck BMD values were significantly lower among all sarcopenia stages when compared to nonsarcopenia (all P values < 0.05, η2p 0.113 to 0.109). The severe sarcopenia group also showed significantly lower lumbar spine BMD values and T-scores (both P values < 0.05; η2p 0.035 and 0.037, respectively). When clustered, sarcopenia and severe sarcopenia exhibited lower BMD values for all sites (all P values < 0.01), and presented a significantly higher risk for osteoporosis (odds ratio 3.445; 95% CI 1.521-7.844). CONCLUSION: The observed results provide support for the concept that a dose-response relationship exists between sarcopenia stages, BMD, and the presence of osteoporosis. These findings strengthen the clinical significance of the

EWGSOP sarcopenia definition and indicate that severe sarcopenia should be viewed with attention by healthcare professionals.

## Climacteric. 2019 Mar 11:1-7. doi: 10.1080/13697137.2019.1568402. [Epub ahead of print] Pelvic floor dysfunction in midlife women.

Johnston SL.

Pelvic floor dysfunction in women includes urinary incontinence and pelvic organ prolapse. In midlife, genitourinary atrophy is commonly associated with these conditions and can practically be considered part of the overall condition. The pelvic floor tissues share a common hormone responsiveness and as such respond collectively to midlife estrogen loss. This review article summarizes the expected consequences of menopause and aging on pelvic floor function and discusses how estrogen deprivation might lead to structural and/or functional failure. A framework for the initial evaluation of pelvic function in midlife women is presented, highlighting the importance of assessing the impact of incontinence, prolapse, and genitourinary atrophy on quality of life.

# J Comp Eff Res. 2019 Mar 11. doi: 10.2217/cer-2018-0085. [Epub ahead of print] Impact of selective serotonin reuptake inhibitors in the veteran population: 10-vear risk outcomes.

Brinton DL, Simpson AN, Fominaya CE, LaRue AC.

AIM: To evaluate the comparative risk of hip fracture or osteoporosis among US Veterans based on selective serotonin reuptake inhibitor (SSRI) exposure. PATIENTS & METHODS: A retrospective cohort study of eligible US Veterans Health Administration patients enrolled in 2003-2004 was performed to examine SSRIs' 2-, 5- and 10-year impact on bone health using multiple logistic regression. RESULTS: Veterans on SSRIs were found to be 56.7% more likely over a 10-year period to suffer a hip fracture (risk ratio: 1.567; 95% CI: 1.464-1.676) and 34.6% more likely to develop osteoporosis (risk ratio: 1.346; 95% CI: 1.319-1.374) when compared with those who were SSRI naive. CONCLUSION: SSRI usage was associated with greater risk of hip fracture and osteoporosis over a 10-year period in the veteran population, with similar effect sizes to smaller studies.

### Singapore Med J. 2019 Mar 11. doi: 10.11622/smedj.2019028. [Epub ahead of print]

# Efficacy and safety of denosumab compared to bisphosphonates in improving bone strength in postmenopausal osteoporosis: a systematic review.

Chandran T, Venkatachalam I.

INTRODUCTION: Osteoporosis is the main cause of fractures among women after menopause. This study aimed to evaluate the efficacy and safety of denosumab compared to bisphosphonates in treating postmenopausal osteoporosis. METHODS: Databases including PubMed and the Cochrane Central Register of Controlled Trials were systematically searched for randomised controlled trials (RCTs) that directly compared denosumab and bisphosphonates. RCTs that studied both denosumab and bisphosphonates in postmenopausal women with osteoporosis and had a Jadad score  $\geq 3$  were included. RESULTS: Nine studies were eligible for inclusion. They were further categorised into six cohort groups. All studies had denosumab with oral bisphosphonates as the active comparator. Four out of six cohort studies showed significant improvements in bone strength (p < 0.001) at the distal radius, tibia, total hip, femoral neck, lumbar spine and trochanter at 12 months for patients on denosumab compared to the bisphosphonate group. Serum C-telopeptide of cross-linked collagen, a bone turnover marker, was consistently lower in the denosumab group in all studies. There were no significant differences in hypocalcaemia, atypical fractures, fragility fractures, osteonecrosis of the jaw, all infections (including fever or influenza-like symptoms), gastrointestinal side effects or dermatological conditions in all studies, except for one that did not document side effects. CONCLUSION: Denosumab can be used both as a first-line agent and an alternative to bisphosphonate in the treatment of postmenopausal osteoporosis. There is currently insufficient data to show that denosumab is not inferior to bisphosphonates in fracture prevention.

Rev Med Chil. 2018 Dec;146(12):1471-1480. doi: 10.4067/s0034-98872018001201471.

## Guidelines of the Chilean Endocrinology Society for the correct clinical use of bone densitometry.

Barberán M M, Campusano M C, Trincado M P, Oviedo G S, Brantes G S, Sapunar Z J, Canessa J, Cid P, et al. Osteoporosis is a silent and frequent disease, which increases fracture risk. Approximately half of women and one of five men over 50 years old will suffer an osteoporotic fracture throughout their lives. Dual-energy x-ray absorptiometry (DXA) allows a real bone mineral density (BMD) measurement in different parts of the skeleton and is considered the "gold standard" for quantifying osteoporosis with high accuracy and precision. The Board of the Chilean Society of Endocrinology and Diabetes (SOCHED) required from the Bone Disease Study Group to develop a consensus about the "Correct use of bone densitometry in clinical practice in Chilean population". Therefore, we elaborated 25 questions which addressed key aspects about the indications for a DXA scan, and the details of how to perform and report this test. Since some of the evidence obtained was of low quality or inconclusive, we decided to create a multidisciplinary group of national experts in osteoporosis to develop a consensus in this subject. The group consisted of 22 physicians including endocrinologists, gynecologists, geriatricians, radiologists, rheumatologists and nuclear medicine specialists. Using the Delphi methodology to analyze previously agreed questions, we elaborated statements that were evaluated by the experts who expressed their degree of agreement. The final report of this consensus was approved by the SOCHED board.