



## Selección de Resúmenes de Menopausia

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### **Evaluating the content and development of decision aid tools for the management of menopause: A scoping review.**

Siyam T, Sultani H, Ross S, Chatterley T, Yuksel N.

**OBJECTIVE:** Decision-making during menopause (especially surgical menopause) can be complex given the variability in risk-benefit perceptions of menopausal treatments. Decision aid tools (DATs) help women participate in decision-making about options. Our objective is to identify and evaluate the content and development of DATs for managing menopause, with a special focus on surgical menopause. **METHODS:** We systematically searched electronic databases, including MEDLINE and EMBASE, from inception to March 2017 for relevant records. The principal inclusion criterion was that papers reported studies on DATs for managing menopause. Search terms were derived from two concepts: menopause and DATs. Data extracted were presented in written evidence tables and narrative summaries. **RESULTS:** Our search yielded 18,801 records. Of these, 26 records met our inclusion criteria, which gave rise to 12 DATs from peer-reviewed literature and 6 from grey literature. Seventeen DATs were focused on natural menopause and two targeted surgical menopause, both identified from grey literature. More than half were published before the Women's Health Initiative (WHI) publication and 70% before the release of the International Patient Decision Aid Standards (IPDAS). Very few studies reported the full development of the DAT involved, and less than half of DATs were informed by a needs assessment to identify the decisional needs of their target population. Most DATs focused on hormone therapy as a treatment option and did not provide a comprehensive overview of other options. None of the DATs reported the steps involved in finding, appraising and summarizing scientific content of the tool. **CONCLUSION:** This review highlights several limitations in the content and development of DATs for managing menopause. No peer-reviewed DATs were identified for surgical menopause. A need for a complete, evidence-based DAT in the context of surgical menopause is identified.

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### **Effects of programmed exercise on depressive symptoms in midlife and older women: A meta-analysis of randomized controlled trials.**

Pérez-López FR, Martínez-Domínguez SJ, Lajusticia H, Chedraui P; Health Outcomes Systematic Analyses Project.

**OBJECTIVE:** To perform a systematic review and meta-analysis to clarify the effect of programmed exercise on depressive symptoms (DSs) in midlife and older women. **METHODS:** We carried out a structured search of PubMed-Medline, Web of Science, Scopus, Embase, Cochrane Library and Scielo, from database inception through June 29, 2017, without language restriction. The search included the following terms: "depression", "depressive symptoms", "exercise", "physical activity", "menopause", and "randomized controlled trial" (RCTs) in midlife and older women. The US, UK and Australian Clinical Trials databases were also searched. We assessed randomized controlled trials (RCTs) that compared the effect of exercise for at least 6 weeks versus no intervention on DSs as the outcome (as defined by trial authors). Exercise was classified according to duration as "mid-term exercise intervention" (MTEI; lasting for 12 weeks to 4 months), and "long-term exercise intervention" (LTEI; lasting for 6-12 months). Mean changes ( $\pm$ standard deviations) in DSs, as assessed with different questionnaires, were extracted to calculate Hedges' g and then used as the effect size for meta-analysis. Standardized mean differences (SMDs) of DSs after intervention were pooled using a random-effects model. **RESULTS:** Eleven publications were included for analysis related to 1943 midlife and older women (age range 44-55 years minimum to 65.5 $\pm$ 4.0 maximum), none of whom was using a hormone therapy. Seven MTEIs were associated with a significant reduction in DSs (SMD=-0.44; 95% CI -0.69, -0.18; p=0.0008) compared with controls. The reduction in DSs was also significant in six LTEIs (SMD=-0.29; 95% CI -0.49; -0.09; p=0.005). Heterogeneity of effects among studies was moderate to high. Less perceived stress and insomnia (after exercise) were also found as secondary outcomes. **CONCLUSION:** Exercise of low to moderate intensity reduces depressive symptoms in midlife and older women.

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## **Postmenopausal hormone therapy and risk of stroke: A pooled analysis of data from population-based cohort studies.**

Carrasquilla GD, Frumento P, Berglund A, Borgfeldt C, Bottai M, Chiavenna C, Eliasson M, Engström G, Hallmans G, et al.

**BACKGROUND:** Recent research indicates a favourable influence of postmenopausal hormone therapy (HT) if initiated early, but not late, on subclinical atherosclerosis. However, the clinical relevance of timing of HT initiation for hard end points such as stroke remains to be determined. Further, no previous research has considered the timing of initiation of HT in relation to haemorrhagic stroke risk. The importance of the route of administration, type, active ingredient, and duration of HT for stroke risk is also unclear. We aimed to assess the association between HT and risk of stroke, considering the timing of initiation, route of administration, type, active ingredient, and duration of HT. **METHODS AND FINDINGS:** Data on HT use reported by the participants in 5 population-based Swedish cohort studies, with baseline investigations performed during the period 1987-2002, were combined in this observational study. In total, 88,914 postmenopausal women who reported data on HT use and had no previous cardiovascular disease diagnosis were included. Incident events of stroke (ischaemic, haemorrhagic, or unspecified) and haemorrhagic stroke were identified from national population registers. Laplace regression was employed to assess crude and multivariable-adjusted associations between HT and stroke risk by estimating percentile differences (PDs) with 95% confidence intervals (CIs). The fifth and first PDs were calculated for stroke and haemorrhagic stroke, respectively. Crude models were adjusted for age at baseline only. The final adjusted models included age at baseline, level of education, smoking status, body mass index, level of physical activity, and age at menopause onset. Additional variables evaluated for potential confounding were type of menopause, parity, use of oral contraceptives, alcohol consumption, hypertension, dyslipidaemia, diabetes, family history of cardiovascular disease, and cohort. During a median follow-up of 14.3 years, 6,371 first-time stroke events were recorded; of these, 1,080 were haemorrhagic. Following multivariable adjustment, early initiation (<5 years since menopause onset) of HT was associated with a longer stroke-free period than never use (fifth PD, 1.00 years; 95% CI 0.42 to 1.57), but there was no significant extension to the time period free of haemorrhagic stroke (first PD, 1.52 years; 95% CI -0.32 to 3.37). When considering timing as a continuous variable, the stroke-free and the haemorrhagic stroke-free periods were maximal if HT was initiated approximately 0-5 years from the onset of menopause. If single conjugated equine oestrogen HT was used, late initiation of HT was associated with a shorter stroke-free (fifth PD, -4.41 years; 95% CI -7.14 to -1.68) and haemorrhagic stroke-free (first PD, -9.51 years; 95% CI -12.77 to -6.24) period than never use. Combined HT when initiated late was significantly associated with a shorter haemorrhagic stroke-free period (first PD, -1.97 years; 95% CI -3.81 to -0.13), but not with a shorter stroke-free period (fifth PD, -1.21 years; 95% CI -3.11 to 0.68) than never use. Given the observational nature of this study, the possibility of uncontrolled confounding cannot be excluded. Further, immortal time bias, also related to the observational design, cannot be ruled out. **CONCLUSIONS:** When initiated early in relation to menopause onset, HT was not associated with increased risk of incident stroke, regardless of the route of administration, type of HT, active ingredient, and duration. Generally, these findings held also for haemorrhagic stroke. Our results suggest that the initiation of HT 0-5 years after menopause onset, as compared to never use, is associated with a decreased risk of stroke and haemorrhagic stroke. Late initiation was associated with elevated risks of stroke and haemorrhagic stroke when conjugated equine oestrogen was used as single therapy. Late initiation of combined HT was associated with haemorrhagic stroke risk.

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## **Two threshold levels of vitamin D and the prevalence of comorbidities in outpatients of a tertiary hospital.**

Furuie IN, Mauro MJ, Petruzzello S, Riechi SC, Petterle RR, Boguszewski CL, Borba VZC.

**INTRODUCTION:** This study evaluated the comorbidities between two values of 25OHD in outpatients of a tertiary hospital. **METHODS:** This is a cross-sectional study with measures of 25OHD in 1-year period, excluding 25OHD < 20 and > 50 ng/mL, clinical research participants, and liver disease and chronic renal failure patients. Patients were divided into two groups: group 1 (G1), 25OHD ≥ 20 and < 30 ng/mL; and group 2 (G2), 25OHD ≥ 30 and ≤ 50 ng/mL. Medical records were reviewed for demographic, laboratory, and comorbidity data. **RESULTS:** From 529 outpatients included, 319 were in G1 (53.3 ± 15.8 years, 85% women), mean 25OHD 24.8 ± 2.8 ng/mL; and 210 outpatients in G2 (56.7 ± 16.0 years, 83% women), mean 25OHD was 36.8 ± 4.8 ng/mL. G1 had the higher number of comorbidities, including altered glycemia, dyslipidemia, hypothyroidism, urinary tract diseases, arthropathy,

secondary hyperparathyroidism, anemia, and neurological and psychiatric disorders. Osteoporosis and hypothyroidism were more prevalent in G2. After binary logistic regression, the variables age (OR 0.988, CI 0.97-1.00,  $p=0.048$ ), osteoporosis (OR 0.54, CI 0.36-0.80,  $p=0.003$ ), dyslipidemia (OR 1.61, CI 1.10-2.39,  $p=0.015$ ), arthropathy (OR 2.60, CI 1.40-5.10,  $p=0.003$ ), anemia (OR 15.41, CI 3.09-280.08,  $p=0.008$ ), and neurological and psychiatric diseases (OR 3.78, CI 1.98-7.88,  $p=0.001$ ) maintained significance. CONCLUSION: Patients with serum 25OHD  $\geq 20$  and  $< 30$  ng/mL had higher prevalence of comorbidities compared to  $\geq 30$  ng/mL.

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### **Is BMI a valid measure of obesity in postmenopausal women?**

Banack HR, Wactawski-Wende J, Hovey KM, Stokes A.

**OBJECTIVE:** Body mass index (BMI) is a widely used indicator of obesity status in clinical settings and population health research. However, there are concerns about the validity of BMI as a measure of obesity in postmenopausal women. Unlike BMI, which is an indirect measure of obesity and does not distinguish lean from fat mass, dual-energy x-ray absorptiometry (DXA) provides a direct measure of body fat and is considered a gold standard of adiposity measurement. The goal of this study is to examine the validity of using BMI to identify obesity in postmenopausal women relative to total body fat percent measured by DXA scan. **METHODS:** Data from 1,329 postmenopausal women participating in the Buffalo OsteoPerio Study were used in this analysis. At baseline, women ranged in age from 53 to 85 years. Obesity was defined as BMI  $\geq 30$  kg/m and body fat percent (BF%) greater than 35%, 38%, or 40%. We calculated sensitivity, specificity, positive predictive value, and negative predictive value to evaluate the validity of BMI-defined obesity relative BF%. We further explored the validity of BMI relative to BF% using graphical tools, such as scatterplots and receiver-operating characteristic curves. Youden's J index was used to determine the empirical optimal BMI cut-point for each level of BF% defined obesity. **RESULTS:** The sensitivity of BMI-defined obesity was 32.4% for 35% body fat, 44.6% for 38% body fat, and 55.2% for 40% body fat. Corresponding specificity values were 99.3%, 97.1%, and 94.6%, respectively. The empirical optimal BMI cut-point to define obesity is 24.9 kg/m for 35% BF, 26.49 kg/m for 38% BF, and 27.05 kg/m for 40% BF according to the Youden's index. **CONCLUSIONS:** Results demonstrate that a BMI cut-point of 30 kg/m does not appear to be an appropriate indicator of true obesity status in postmenopausal women. Empirical estimates of the validity of BMI from this study may be used by other investigators to account for BMI-related misclassification in older women.

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### **Bisphosphonates, atherosclerosis and vascular calcification: update and systematic review of clinical studies.**

Caffarelli C, Montagnani A, Nuti R, Gonnelli S.

**Background:** Epidemiologic and clinical data have suggested the existence of a biologic linkage between the bone system and the vascular system. Bisphosphonates (BPs) are effective inhibitors of bone resorption and are currently considered the drugs of choice for the prevention and treatment of osteoporosis and related fractures. Data from several publications have suggested that BPs may also be effective in reducing the atherosclerotic process and vascular calcification, but the results of these studies are contrasting. This review aimed to allow a better understanding of the relationships between BPs and atherosclerosis in humans. **Materials and methods:** Electronic databases of Pubmed-Medline, Cochrane Library and SCOPUS from inception to June 30, 2016 were searched. The full texts of the articles potentially eligible were carefully assessed and reviewed. Finally, 20 studies were found to be eligible and were included in the systematic review. All included studies were published between 2000 and 2014. **Results:** In several studies, etidronate limited the progression of aortic and coronary calcification in hemodialysis patients, whereas the nitrogen-containing-BPs given orally did not significantly reduce vascular calcifications in patients with chronic kidney disease, kidney transplant or in those with osteoporosis. Nitrogen-containing-BPs present favorable effects both on vessel wall thickness and on arterial elasticity due to both a reduction in serum lipids and the interaction of BPs with the bone tissue, with the consequent release of bone turnover markers and cytokines into the bloodstream. **Conclusion:** To sum up, the BPs seem to have the potential of influencing atherosclerosis and calcium homeostasis at the level of vascular walls with several possible mechanisms which may differ according to the type, potency, dosage and administration route of BPs. Additional studies are needed to specifically address the mechanism by which BP use could influence cardiovascular morbidity and mortality.

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**Association between mental health status and bone mineral density: Analysis of the 2008-2010 Korea national health and nutrition examination survey.**

Hahn C, Oh JH, Joo SH, Jeong JE, Chae JH, Lee CU, Kim TS.

The current study aimed to investigate the association between mental health status and bone mineral density (BMD) using data from the Korean National Health and Nutrition Examination Survey (KNHANES) 2008-2010. We enrolled 15,876 South Korean participants (4,010 postmenopausal females, 4,836 premenopausal females, and 7,016 males, all aged 20 years or older). BMD was measured using dual-energy radiography absorptiometry at the femoral neck (NK), lumbar spine (LSP), and total femur (TFM). Mental health status data were obtained from a self-report questionnaire that assessed psychological stress, depressed mood, and suicidal ideation. Psychological stress was negatively correlated with BMD in the LSP, NK, and TFM for the male group. Depressed mood was associated with lower BMD in the LSP, NK and TFM for the premenopausal female group, and in the LSP for the male group. Suicidal ideation was associated with lower BMD in the NK and TFM for the male group. Mental health problems were associated with lower BMD, especially in premenopausal females and males. Future investigations should focus on the shared pathophysiology between mental health problems and BMD, and the interrelationship between increased BMD and recovery from mental health problems.