

Menopause

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July 2024

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Publication Date: 2024

Journal: British Journal of Cancer

Abstract: BACKGROUND: There is limited evidence on the safety of Hormone Replacement Therapy (HRT) in women with cancer. Therefore, we systematically examined HRT use and cancer-specific mortality in women with 17 site-specific cancers. **METHODS:** Women newly diagnosed with 17 site-specific cancers from 1998 to 2019, were identified from general practitioner (GP) records, hospital diagnoses or cancer registries in Scotland, Wales and England. Breast cancer patients were excluded because HRT is contraindicated in breast cancer patients. The primary outcome was time to cancer-specific mortality. Time-dependent Cox regression models were used to calculate adjusted hazard ratios (HR) and 95% confidence intervals (95% CIs) for cancer-specific mortality by systemic HRT use. **RESULTS:** The combined cancer cohorts contained 182,589 women across 17 cancer sites. Overall 7% of patients used systemic HRT after their cancer diagnosis. There was no evidence that HRT users, compared with non-users, had higher cancer-specific mortality at any cancer site. In particular, no increase was observed in common cancers including lung (adjusted HR = 0.98 95% CI 0.90, 1.07), colorectal (adjusted HR = 0.79 95% CI 0.70, 0.90), and melanoma (adjusted HR = 0.77 95% CI 0.58, 1.02). **CONCLUSIONS:** We observed no evidence of increased cancer-specific mortality in women with a range of cancers (excluding breast) receiving HRT. Copyright © 2024. The Author(s).

3. A systematic review of community pharmacy interventions to improve peri- and post-menopausal health.

Authors: Chow, H.;Righton, O.;Berry, H.;Bell, Z. and Flynn, A. C.

Publication Date: 2024

Journal: Post Reproductive Health 30(1), pp. 55-63

Abstract: Menopause is defined as the permanent cessation of menstruation due to loss of ovarian follicular function. Symptoms include mood disorders, vaginal atrophy, hot flashes and night sweats and can emerge during a gradual transition period called perimenopause. Community pharmacies are well placed to deliver a wide range of healthcare services, including supporting and educating menopausal women; however, to date, no systematic review has assessed the effectiveness of community pharmacy-led interventions in improving peri- and post-menopausal health. In accordance with PRISMA guidelines we evaluated community pharmacy-led interventions that targeted women in peri- or post-menopause. Electronic searches in EMBASE, MEDLINE, CINAHL and Cochrane Library were conducted on 13th February 2023. Additionally, we examined the included studies references and citation lists using Google Scholar. A total of 915 articles were identified and screened against the inclusion criteria. Two studies were included; one identified post-menopausal women at risk of developing osteoporosis (OP), and one evaluated the outcomes of a community pharmacy-based menopause education programme. Study one found 11 (11%) post-menopausal women were at risk of developing OP based on quantitative ultrasound screening offered by community pharmacists and referred to their physician. Study two reported that women had access to adequate personalised menopause counselling and increased knowledge of menopause topics because of the educational programme within community pharmacies. Both studies were of low quality. The lack of included studies reflects the need for high-quality research to determine whether community pharmacy-led interventions are feasible, effective and acceptable, to improve health outcomes of peri- or post-menopausal women.

4. Linking menopause-related factors, history of depression, APOE epsilon4, and proxies of biological aging in the UK biobank cohort.

Authors: Crestol, Arielle;de Lange, Ann-Marie G.;Schindler, Louise;Subramaniapillai, Sivaniya;Nerland, Stener;Oppenheimer, Hannah;Westlye, Lars T.;Andreassen, Ole A.;Agartz, Ingrid;Tamnes, Christian K. and Barth, Claudia

Publication Date: Jun 29 ,2024

Journal: Hormones & Behavior 164, pp. 105596

Abstract: In a subset of females, postmenopausal status has been linked to accelerated aging and neurological decline. A complex interplay between reproductive-related factors, mental disorders, and genetics may influence brain function and accelerate the rate of aging in the postmenopausal phase. Using multiple regressions corrected for age, in this preregistered study we investigated the associations between menopause-related factors (i.e., menopausal status, menopause type, age at menopause, and reproductive span) and proxies of cellular aging (leukocyte telomere length, LTL) and brain aging (white and gray matter brain age gap, BAG) in 13,780 females from the UK Biobank (age range 39-82). We then determined how these proxies of aging were associated with each other, and evaluated the effects of menopause-related factors, history of depression (= lifetime broad depression), and APOE epsilon4 genotype on BAG and LTL, examining both additive and interactive relationships. We found that postmenopausal status and older age at natural menopause were linked to longer LTL and lower BAG. Surgical menopause and longer natural reproductive span were also associated with longer LTL. BAG and LTL were not significantly associated with each other. The greatest variance in each proxy of biological aging was most consistently explained by models with the addition of both lifetime broad depression and APOE epsilon4 genotype. Overall, this study demonstrates a complex interplay between menopause-related factors, lifetime broad depression, APOE epsilon4 genotype, and proxies of biological aging. However, results are potentially influenced by a disproportionate number of healthier participants among postmenopausal females. Future longitudinal studies incorporating heterogeneous samples are an essential step towards advancing female health. Copyright © 2024 The Authors. Published by Elsevier Inc. All rights reserved.

5. The effect of soy isoflavones given to women in the climacteric period on menopausal symptoms and quality of life: Systematic review and meta-analysis of randomized controlled trials

Authors: Gencturk, Nuran;Bilgic, Fatma Sule and Kaban, Hulya Ulasli

Publication Date: 2024

Journal: Explore: The Journal of Science & Healing

Abstract: OBJECTIVE: This systematic review and meta-analysis aimed to examine the effect of soy isoflavones on menopausal symptoms and quality of life in climacteric women. **METHOD:** The literature search was conducted in PubMed, CINAHL, Scopus, and Science Citation Index (Web of Science) until September 2023. This study is based on the recommendations of the Cochrane guidelines. The data were analysed using the Review Manager computer software (Version 5.4). The methodological quality of the studies was assessed with the RoB-2 tool. **RESULTS:** This analysis was completed with five studies and 425 climacteric women. According to the results of the analysis, menopausal symptoms (SMD: -0.49, 95 % CI: -1.13 to 0.16, Z = 1.47, p = 0.14), physical component (MD: -1.10, 95 % CI: -4.22 to 2.01, Z = 0.70, p = 0.49) and mental component (MD: 0.81, 95 % CI: -6.73 to 8.35, Z = 0.21, p = 0.83), but there was a significant difference in depression level (SMD: -0.41, 95 % CI: -0.73 to -0.09, Z = 2.53, p = 0.01). **CONCLUSION:** According to the results of the analysis, soy isoflavones had no effect on menopausal symptoms (vasomotor, psychosocial, physical, sexual, and urogenital complaints) and quality of life in climacteric women but did reduce the level of depression. There was a high risk of conflict of interest in the included studies. **PROSPERO DATABASE:** Registration: CRD420234479700. Copyright © 2024 Elsevier Inc. All rights reserved.

6. Comparison of the effect of noninvasive radiofrequency with vaginal estrogen and vaginal moisturizer in the treatment of vulvovaginal atrophy in postmenopausal women: a randomized clinical trial.

Authors: Gueldini De Moraes, A. V.;CostaPaiva, L.;Da Costa MacHado, H.;Maclel, T. F.;Mariano, F. V. and Pedro, A. O.

Publication Date: 2024

Journal: Menopause 31(4), pp. 288-302

Abstract: Objective To compare the effect of noninvasive radiofrequency (RF) with vaginal estrogen (E), and vaginal moisturizer (M) on improving vulvovaginal atrophy (VVA) in women with genitourinary syndrome of menopause. Methods A total of 32 postmenopausal women who met the inclusion criteria were randomized into three intervention arms to receive one of the following treatments: three sessions of noninvasive RF therapy (RF arm); intravaginal estriol cream 1 mg applied daily for 2 weeks, followed by 1 mg applied two times weekly or 1 mg of estradiol vaginal fast-dissolving film applied daily for 2 weeks, followed by 1 mg applied two times weekly (E arm); and intravaginal moisturizer two times a week (M arm). Assessments at baseline and after 4 months were conducted using Vaginal Health Index score, Vaginal Maturation, visual analog scale for VVA symptoms (dyspareunia, dryness, and burning), and Menopause Rating Scale (MRS) for urogenital symptoms. Vaginal wall biopsies were administered to participants who consented, pretreatment and posttreatment (at baseline and after 4 months of follow-up). Results After 4 months, the Vaginal Health Index showed an increase of 6.6 points in mean total score in the RF arm, also in the E arm (+7.3 points), with no significant improvement in the M arm (+1.5 points) (interaction effect: RF, E M, $P < 0.001$). Regarding vaginal maturation, there was a significant increase in superficial cells in the E arm (+31.3), with no significant changes in the RF (+9.3) and M (-0.5) arms (interaction effect: E M, $P < 0.001$). Vaginal pH decreased significantly in the E arm (-1.25), with a similar response in the RF arm (-1.7), with no significant improvement in the M arm (-0.25) (interaction effect: RF, E M, $P < 0.001$). There was a significant improvement in the MRS score for VVA symptoms in the three intervention arms, with no predominance of any arm, whereas the improvement in the total MRS score for urogenital symptoms showed a predominance of the RF arm (DELTA RF: -7.8; DELTA E: -3.5; DELTA M: -2.3; RF E, M). According to histopathologic analysis, there was no statistically significant increase in glycogenation ($P = 0.691$) or epithelial cone height ($P = 0.935$), despite an increase in the median delta (difference between pretreatment and posttreatment) in the three intervention arms (glycogenation: RF arm DELTA = +118.4%; E arm DELTA = +130.9%; M arm DELTA = +24.9%; epithelial cone height: RF arm DELTA = +33.5%; E arm DELTA = +18.6%; M arm DELTA = +22.3%). Conclusion The effect of noninvasive RF on the treatment of vulvovaginal symptoms of genitourinary syndrome of menopause was similar to vaginal estrogen, except for hormonal cytology, and superior to vaginal moisturizer, with improvement in some histomorphometric parameters. These findings are promising, especially for the population that cannot or prefers not to use vaginal estrogen therapy.

7. What are the health needs of women with female genital mutilation going through menopause?

Authors: Kamal, Aini; Kamara, Sarian; Khasriya, Rajvinder; Elneil, Sohier; Newson, Louise and Reisel, Daniel

Publication Date: Jun 22, 2024

Journal: Maturitas 187, pp. 108058

Abstract: Female genital mutilation is widely recognised as a practice that causes grave, permanent damage to the genital anatomy and function. The literature has documented its impact on physical, sexual, emotional, and mental wellbeing, and this has informed the development of guidelines and recommendations for managing women with female genital mutilation. There has, though, been little, if any, focus on how women with female genital mutilation experience menopause. A literature search did not return any published research on the topic and there are currently no clinical guidelines for managing the menopause in women who have undergone female genital mutilation. This review calls attention to this gap by exploring the clinical implications that the loss of natural hormones has on the vulvovaginal tissues, as well as on urogenital and sexual function. Psychological aspects of the experience of women with female genital mutilation going through menopause are also explored, as well as common barriers they face in accessing adequate healthcare. Finally, we offer a set of recommendations for clinical practice, including the need to improve current care pathways, and

8. Menopause in a globalized world - A systematic literature review focussing on the challenge of health problems associated with menopausal transition among women with a migration background

Authors: Kirchengast, Sylvia

Publication Date: Jun 06 ,2024

Journal: Maturitas 187, pp. 108045

Abstract: Globalization and international migration movements have massively changed the population structure of most industrial nations in recent decades. The ever-increasing proportion of people with a migration background also poses a challenge for the medical sector. A particular problem is the stressful phase of the menopausal transition, which - although not a pathological phenomenon but part of the female life history - can lead to psychological and physical symptoms due to hormonal changes, which significantly impair the quality of life of the women affected. However, treatment concepts, as well as access to medical facilities and information, are geared towards Western women from high-income countries. Women with a history of voluntary or forced migration originating from non-Western countries represent a particularly vulnerable group. To enable personalized treatment, studies on menopausal transition in women with a migration background are required. The present review shows that studies on menopausal women with a migration background have been conducted primarily in classic immigration countries such as the USA, Australia, or the UK, but that there is a lack of such studies in countries with no long tradition as an immigration country, such as Austria or Germany. This is becoming a growing problem, as the number of menopausal women with a migration background is increasing. Copyright © 2024 The Author. Published by Elsevier B.V. All rights reserved.

9. Adherence to the Mediterranean diet is associated with handgrip strength in postmenopausal women.

Authors: Lampropoulou, Virginia;Karagkouni, Ilianna;Armeni, Eleni;Chatzivasileiou, Panagiota;Chedraui, Peter;Kontou, Loraina;Augoulea, Areti;Kaparos, George;Panoskaltsis, Theodoros;Alexandrou, Andreas and Lambrinouadaki, Irene

Publication Date: Jul 01 ,2024

Journal: Climacteric 1-7

Abstract: OBJECTIVE: This study aimed to assess the possible association of adherence to the Mediterranean diet (MD) with muscle strength and body composition. **METHODS:** The cross-sectional study evaluated 112 postmenopausal women (aged 41-71 years). Fasting blood samples were obtained for biochemical/hormonal assessment. The Mediterranean Dietary Score (MedDietScore) was calculated and used to stratify adherence by tertiles (low [T1], moderate [T2] or high [T3]). Handgrip strength (HGS) was measured by dynamometry and body composition with dual-X-ray absorptiometry. **RESULTS:** Women with low-moderate MedDietScore (T1/T2) had lower HGS values than those with higher scores (19.5 +/- 4.9 kg vs. 21.9 +/- 3.9 kg, p = 0.023). A linear stepwise increase of HGS values per MedDietScore tertile was found (T1 vs. T2 vs. T3: 18.4 +/- 4.4 kg vs. 20.6 +/- 5.2 kg vs. 21.9 +/- 3.9 kg, ANOVA p-value for linear trend = 0.009, ANCOVA p-value = 0.026). Multivariable models confirmed that HGS values were independently associated with the MedDietScore (beta-coefficient = 0.266, p = 0.010). Lean mass values were associated with the MedDietScore (beta-coefficient = 0.205, p = 0.040). All models were adjusted for age and cardiometabolic risk factors. **CONCLUSIONS:** The data suggest that the higher the adherence to the MD, the better the muscle strength and lean mass in postmenopausal women. Prospective studies are required to evaluate the significance of these observations in cardiovascular prevention strategies at midlife.

10. Cognitive and behavioral weight management strategies during the menopausal transition: Insights from the Menopause and Weight Loss (ME-WEL) project.

Authors: Leitao, Mafalda;Perez-Lopez, Faustino R.;Maroco, Joao and Pimenta, Filipa

Publication Date: Jun 27 ,2024

Journal: Maturitas 187, pp. 108060

Abstract: **OBJECTIVE:** Most women experience weight gain during the menopausal transition, often attributed to behavioral factors. Nevertheless, some women successfully maintain a healthy weight during this phase. This study aims to identify the successful cognitive and behavioral weight management strategies employed by postmenopausal women who effectively maintained a healthy weight during the menopausal transition (from premenopause to postmenopause). **METHOD:** Semi-structured interviews were conducted with 31 Portuguese postmenopausal women, aged 45-65 years (mean and standard deviation 54.06 +/- 5.51) who successfully maintained a healthy weight (body mass index: 18.5 kg/m²-24.9 kg/m²) during the menopausal transition. The interviews were conducted via telephone (n = 29) and Zoom (n = 2), based on the participant's preference, and ranged from 11 to 52 min (22.06 +/- 9.95). Using MAXQDA software, deductive-dominant content analysis of the interviews was performed. The Interface of R for the Multidimensional Analyses of Texts and Questionnaire software was used for lexical analysis. **RESULTS:** The qualitative analysis of cognitive and behavioral strategies for successful weight management yielded 17 categories and 37 sub-categories. Effective cognitive and behavioral strategies (e.g., planning content, stimulus control, support: help from others) were identified, mostly aligning with the Oxford Food and Activity Behaviors Taxonomy. Five new categories emerged: dietary choices, intuitive eating, food literacy, psychological self-care, and effortful inhibition. **CONCLUSION:** Knowing effective cognitive and behavioral weight management strategies for menopausal women is relevant, especially considering their status as a high-risk group. This knowledge provides a valuable guide for designing weight management interventions, emphasizing the essential role of behavioral change. Copyright © 2024 The Authors. Published by Elsevier B.V. All rights reserved.

11. Alternations in the human skin, gut and vaginal microbiomes in perimenopausal or postmenopausal Vulvar lichen sclerosis.

Authors: Ma, X.;Wen, G.;Zhao, Z.;Lu, L.;Li, T.;Gao, N. and Han, G.

Publication Date: 2024

Journal: Scientific Reports 14(1) (pagination), pp. Article Number: 8429. Date of Publication: December 2024

Abstract: Vulvar lichen sclerosis (VLS) is a chronic and progressive dermatologic condition that can cause physical dysfunction, disfigurement, and impaired quality of life. However, the etiology of VLS remains unknown. The vulvar skin, intestinal and vaginal microbiomes have been postulated to play important roles in the pathogenesis of this disease. The aim of this study was to compare the compositional characteristics of the vulvar skin, vagina, and gut microbiota between perimenopausal or postmenopausal VLS patients and healthy controls. The study involved six perimenopausal or postmenopausal VLS patients which were based on characteristic clinical manifestations and histologic confirmation and five healthy controls. The pruritus severity of each patient was evaluated using the NRS scale, and the dermatology-specific health-related quality of life was assessed using the Skindex-16. Metagenomic sequencing was performed, and the results were analyzed for alpha and beta diversity. LEfSe analysis were used to investigate the microbial alterations in vulvar skin, gut and vagina. KEGG databases were used to analyze differences in functional abundance. The study found significant differences in alpha diversity between the two groups in stool and vaginal samples ($P < 0.05$). Patients with VLS had a higher abundance of *Enterobacter cloacae*, *Flavobacterium branchiophilum*, *Mediterranea*_sp._An20, *Parabacteroides johnsonii* and *Streptococcus bovimastitidis* on the vulvar skin, while *Corynebacterium*_sp._zg-913 was less

abundant compared to the control group. The relative abundance of *Sphingomonas_sp._SCN_67_18*, *Sphingobium_sp._Ant17*, and *Pontibacter_sp._BT213* was significantly higher in the gut samples of patients with VLS. *Paenibacillus_popilliae*, *Gemella_asaccharolytica*, and *Coriobacteriales_bacterium_DNF00809* compared to the control group. Additionally, the vaginal samples of patients with VLS exhibited a significantly lower relative abundance of *Bacteroidales_bacterium_43_8*, *Bacteroides_sp._CAG:20*, *Blautia_sp._AM28-10*, *Fibrobacter_sp._UWB16*, *Lachnospiraceae_bacterium_AM25-39*, *Holdemania_filiformis*, *Lachnospiraceae_bacterium_GAM79*, and *Tolumonas_sp.* Additionally, the butyrate-producing bacterium SS3/4 showed a significant difference compared to the controls. The study found a negative relationship between *Sphingobium_sp._Ant17* in stool and Skindex-16 ($P < 0.05$), while *Mediterranea_sp._An20* had a positive correlation with Skindex-16 ($P < 0.05$) in the skin. Additionally, our functional analysis revealed alterations in Aminoacyl_tRNA_biosynthesis, Glutathione_metabolism, the pentose phosphate pathway, and Alanine__aspartate_and_glutamate_metabolism in the VLS patient group. The study suggests that perimenopausal or postmenopausal patients with VLS have a modified microbiome in the vulvar skin, gut, and vagina. This modification is linked to abnormal energy metabolism, increased oxidative stress, and abnormal amino acid metabolism.

12. Sleep disturbance associated with the menopause.

Authors: Maki, Pauline M.;Panay, Nick and Simon, James A.

Publication Date: 2024

Journal: Menopause

Abstract: IMPORTANCE AND OBJECTIVES: Sleep disturbance is one of the most common and debilitating symptoms experienced by women during the menopause transition. However, there are currently no therapies specifically approved for sleep disturbance associated with the menopause. Here, we consider how to characterize sleep disturbance associated with the menopause and discuss its etiology, including the latest advances in our understanding of the neuronal circuits that regulate reproduction, body temperature, sleep, and mood; and reflect on its impact on women's health and well-being. We also examine the current treatment landscape and look to the future of treatment for this condition. **METHODS:** We conducted a review of the literature and combined this with discussion with experts in the fields of sleep and menopause as well as experiences from our own clinical practices. **DISCUSSION AND CONCLUSIONS:** Sleep disturbance associated with the menopause is characterized by frequent night-time awakenings and increased awake time after sleep onset. Its impacts are wide-ranging, negatively affecting health as well as personal and social relationships, productivity, and work performance. There is currently an unmet need for effective, safe, and well-tolerated treatments to address this important symptom, and wider recognition of the association between sleep disturbances and the menopause is needed. Sleep disturbances associated with the menopause can result from hormone changes as well as vasomotor and mood symptoms. Growing research has contributed to our knowledge of the role of hypothalamic estrogen-sensitive kisspeptin/neurokinin B/dynorphin neurons. These neurons are thought to integrate the gonadotropin-releasing hormone pathway and the pathways responsible for the homeostatic control of body temperature and the circadian regulation of sleep-wake cycles. Understanding these neurons offers the potential to create treatments that target a key cause of sleep disturbance associated with the menopause. Further research to understand their etiology and characterize the neuronal circuits responsible could benefit the development of these targeted treatment approaches. Copyright © 2024 The Author(s). Published by Wolters Kluwer Health, Inc. on behalf of The Menopause Society.

13. Features, measurements, determinants, treatments, and outcomes of musculoskeletal symptoms in postmenopausal women: A scoping review.

Authors: Nguyen, Tram Thi Bich and Hsu, Yu-Yun

Publication Date: Jun 19 ,2024

Journal: Geriatric Nursing 58, pp. 416-429

Abstract: **BACKGROUND:** The literature lacks a consistent review of musculoskeletal symptoms in postmenopausal women. **AIM:** To identify features, measurements, determinants, treatments, and outcomes of musculoskeletal symptoms in postmenopausal women. **METHOD:** A scoping review was completed using six databases: Embase, Medline, Cochrane, CINAHL, Web of Science, and Scopus up to December 2022. Sixty-three articles were identified. **RESULTS:** Musculoskeletal symptoms in postmenopausal women include somatic symptoms of non-specific origin, upper and lower limb symptoms, spinal pain, and decline in physical performance. Measurements were categorized into four groups: musculoskeletal symptoms for menopause, general musculoskeletal symptoms, menopause-specific quality of life, and general quality of life questionnaires. The determinants were grouped into four themes: demographics, physical determinants, psychosocial determinants, and lifestyle. Pharmacological interventions, supplementation options, and exercise regimens exist for postmenopausal women with musculoskeletal symptoms. **CONCLUSION:** A comprehensive policy is needed to address musculoskeletal symptoms in postmenopausal women, promoting diverse treatments for improved quality of life. Copyright © 2024 Elsevier Inc. All rights reserved.

14. Neuroprotective effect of hormone replacement therapy: a review of the literature

Authors: Rueda Beltz, Camilo; Munoz Vargas, Brandon Alejandro; Davila Neri, Isabella and Diaz Quijano, Diana Marcela

Publication Date: Jun 11, 2024

Journal: Climacteric 1-6

Abstract: **OBJECTIVE:** Menopause is a physiological period characterized by the cessation of ovarian activity. Sequential changes during this transition affect multiple systems, including the brain. Sixty percent of women experience cognitive impairment. The objective of this review is to show the neuroprotective effect of hormone replacement therapy (HRT) through the different scales and whether there is a benefit of this in women. **METHOD:** A search was conducted in six databases. Eligibility criteria included women within 10 years of menopause, receiving HRT controlled with placebo, studies lasting more than 6 months and women without a history of chronic underlying pathology. **RESULTS:** A total of nine randomized controlled trials met the inclusion criteria. Regarding memory, two studies reported better performance of HRT with a significant odds ratio (OR) of 0.67; regarding attention, one study reported potential improvement in women receiving HRT with a significant OR of 0.87; and neuroimaging assessment found an increase in ventricular volume compared to placebo over a 3-year period. **CONCLUSIONS:** The early initiation of menopausal HRT in healthy women appears to yield a positive effect on certain cognitive aspects, such as attention and cortical volume in the central nervous system. These findings should be confirmed through future prospective studies.

15. The impact of a specialist-led digital health application on menopause symptoms in the workplace: A single-arm, longitudinal evaluation.

Authors: Schei, T. S. and Abernethy, K.

Publication Date: 2024

Journal: Maturitas 187(pagination), pp. Article Number: 108005. Date of Publication: September 2024

Abstract: Objectives: The aim of the study was to evaluate the change in menopause symptoms and work impairment among a cohort of UK working women who utilised an employer-provided digital menopause health application offering education and personalised support. Study design: We adopted a retrospective, single-arm, longitudinal approach by analysing data from 11,870 users of the Peppy Health menopause application. Users reported their menopause symptoms and work impairment on day 0 and after 90 and 180 days of application use. Main outcome measures: Menopause symptoms were measured by the Menopause Rating Scale, while work impairment was measured by a single

question. Results: A significant decrease in the severity of menopause symptoms was observed in users across menopause stages, except for premenopausal users who saw lower severity and no change over time. Improvement in menopause symptoms was positively associated with the degree of application engagement. Work impairment also significantly reduced over time for menopausal users, and a significant association was observed between a reduction in menopause symptoms and a decline in work impairment. Conclusions: Our findings show that engaging with a digital menopause application is associated with an improvement in menopause symptoms, which lends initial support for the use of personalised digital solutions to help working women through the menopause transition.

16. Bacterial vaginosis after menopause: factors associated and women's experiences: a cross-sectional study of Australian postmenopausal women.

Authors: Stewart, L. L.;Vodstrcil, L. A.;Coombe, J.;Bradshaw, C. S. and Hocking, J. S.

Publication Date: 2024

Journal: Sexual Health 21(3) (pagination), pp. Article Number: SH23094. Date of Publication: 16 Ar 2024

Abstract: Background: Bacterial vaginosis (BV) is the most common cause of vaginal discharge in reproductive age women; however, little is known about it after menopause. We aimed to learn more about BV in Australian postmenopausal women. Methods We conducted an online survey (July-September 2021). Participants were recruited via social media and professional networks and asked about demographic characteristics, sexual history and BV experiences. Outcomes of interest were the proportion who had heard of BV, had BV ever, or had BV after menopause. Factors associated with these outcomes were assessed using logistic regression. Results Of 906 participants, 83% were included in the analysis. Overall, 37.9% had heard of BV, 11.0% reported having a BV diagnosis ever, 6.3% reported having a BV diagnosis after menopause and 4.4% reported having a BV diagnosis only after menopause. Multivariable analysis found that among all women the odds of having a BV diagnosis after menopause were increased for those who had BV before menopause, had douched in the past 12months, or had a previous STI diagnosis. Among those in a sexual relationship, a BV diagnosis after menopause was associated with a BV diagnosis before menopause, or being in a sexual relationship of 5years or less in duration. About half who reported BV after menopause described recurrences, distress, and a detrimental effect on sexual relationships. Conclusions BV in postmenopausal women is associated with sexual activity, and impacts negatively on their lives. Research into BV should not be limited to reproductive age women.

17. Menopausal hormone therapy and breast cancer risk: a population-based cohort study of 1.3 million women in Norway.

Authors: Stoer, Nathalie C.;Vangen, Siri;Singh, Deependra;Fortner, Renee T.;Hofvind, Solveig;Ursin, Giske and Botteri, Edoardo

Publication Date: 2024

Journal: British Journal of Cancer

Abstract: BACKGROUND: It is important to monitor the association between menopausal hormone therapy (HT) use and breast cancer (BC) risk with contemporary estimates, and specifically focus on HT types and new drugs. **METHODS:** We estimated hazard ratios (HR) of BC risk according to HT type, administration route and individual drugs, overall and stratified by body mass index (BMI), molecular subtype and detection mode, with non-HT use as reference. **RESULTS:** We included 1,275,783 women, 45+ years, followed from 2004, for a median of 12.7 years. Oral oestrogen combined with daily progestin was associated with the highest risk of BC (HR 2.42, 95% confidence interval (CI) 2.31-2.54), with drug-specific HRs ranging from Cliovelle R: 1.63 (95% CI 1.35-1.96) to Kliogest R: 2.67 (2.37-3.00). Vaginal oestradiol was not associated with BC risk. HT use was more strongly associated with luminal A cancer (HR 1.97, 95% CI 1.86-2.09) than other molecular subtypes,

and more strongly with interval (HR 2.00, 95% CI: 1.83-2.30) than screen-detected (HR 1.33, 95% CI 1.26-1.41) BC in women 50-71 years. HRs for HT use decreased with increasing BMI. **CONCLUSIONS:** The use of oral and transdermal HT was associated with an increased risk of BC. The associations varied according to HT type, individual drugs, molecular subtype, detection mode and BMI. Copyright © 2024. World Health Organization and The Author(s).

18. A retrospective audit of general practitioner's referrals to Guys and St Thomas' specialist menopause clinic between 2021 and 2022.

Authors: Tedajo Tsambou, J.; Bruce, D.; Holloway, D. and Rymer, J.

Publication Date: 2024

Journal: Post Reproductive Health 30(2), pp. 121-126

Abstract: Purpose: We performed a retrospective audit of General Practitioners' (GPs) referrals to the specialist Menopause Clinic at Guys and St Thomas's (GSTT) between 2021 and 2022. We aim to establish the indication for the referrals and whether they were compliant with the National Institute for Health and Care Excellence Guidance NICE. Background: GSTT is a teaching hospital in central London that educates gynaecologists in training as well as (GP) for specialist certification in Menopause. The menopause clinic receives approximately 580 GP referrals per month from South East London practices. The current waiting time for an initial appointment is up to 1 year. This delay reflects an increase in demand for menopause care and a deficit in service provision in many areas of the UK. NICE has recommended that GPs refer complicated cases to menopause specialists, with 11 specific criteria. Study Sample and Data Collection: We randomly selected 50 patients referred to the GSTT clinic by a GP between 2021 and 2022. Patient data were collected, including patient demographics, date of referral, indication for referral, date of consultation, waiting time, past medical history, investigations, and treatment instigated during the appointment. Results: The majority of referrals to the GSTT menopause Specialist clinic met the NICE guidelines (76%). One-sixth of the referrals could have been prevented or managed through alternative routes. Finally, although this is a small study, some patient unmet needs (PUNS) and GPs' educational needs have been identified.

19. Menopause and the role of physical activity - The views and knowledge of women aged 40-65.

Authors: Wasley, D. and Gailey, S.

Publication Date: 2024

Journal: Post Reproductive Health 30(2), pp. 77-84

Abstract: Menopause marks the end of female reproductive capacity. It is defined as the point after cessation of the menstrual cycle for 12 months (Nursat et al., 2008). Awareness about menopause has increased over the last decade, yet studies have shown that women still lack knowledge regarding the subject. Likewise, awareness of women between the age of 40-65 on the potential role of physical activity prior to and during menopause in women is unclear. Women (n = 162) aged 40-65 years completed a survey rating their knowledge, answered fact-based questions and reported their experiences of menopause. Their levels of, and beliefs on, the role physical activity on symptoms and menopause associated disease risk were also collected. Women reported their confidence in their current knowledge level at 67% reflecting 37% higher rating than an estimate of their knowledge 10 years ago. Their factual knowledge score was 56%. Knowledge was primarily gained through friends and family and almost half (46%) had not spoken to a healthcare professional. Frustration was expressed with lack of knowledge and support of healthcare and others. Women using HRT (44%) had mixed attitudes towards its role. A high proportion were active and felt that physical activity can help manage symptoms and impact long-term health consequences of menopause. Menopause education strategies for women, healthcare professionals and others need to be improved. Lack of education may be causing women to struggle and feel negatively towards this life stage. Physical activity was viewed

positively for the symptoms and a treatment during menopause and long-term health.

20. **Guideline No. 451: Asymptomatic Endometrial Thickening in Postmenopausal Women.**

Authors: Wolfman, Wendy;Bougie, Olga;Chen, Innie;Tang, Yale;Goldstein, Susan and Bouteaud, Jeanne

Publication Date: Jun 18 ,2024

Journal: Journal of Obstetrics & Gynaecology Canada: JOGC 102591

Abstract: **OBJECTIVE:** To formulate strategies for clinical assessments for endometrial thickening on ultrasound in a postmenopausal woman without bleeding. **TARGET POPULATION:** Postmenopausal women of any age. **OUTCOMES:** To reduce unnecessary invasive interventions and investigations in women with asymptomatic endometrial thickening while selectively investigating women at risk for endometrial cancer. **BENEFITS, HARMS, AND COSTS:** It is anticipated that the adoption of these recommendations would save postmenopausal women unnecessary anxiety, pain, and risk of procedural complications. It is also expected to decrease the cost to the health care system by eliminating unnecessary interventions. **EVIDENCE:** English language articles from Medline, Cochrane, and PubMed databases for relevant peer-reviewed articles dating from 1995 to 2022 (e.g., asymptomatic endometrial thickness, endometrial cancer, postmenopausal bleeding, transvaginal ultrasound, endometrial biopsy, cervical stenosis, hormone therapies and the endometrium, tamoxifen, tibolone, aromatase inhibitors). Results were restricted to systematic reviews and meta-analyses, randomized controlled trials/controlled clinical trials, and observational studies. **VALIDATION METHODS:** The authors rated the quality of evidence and strength of recommendations using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach. See Appendix A (Tables A1 for definitions and A2 for interpretations of strong and conditional [weak] recommendations). **INTENDED AUDIENCE:** Physicians, including gynaecologists, obstetricians, family physicians, radiologists, pathologists, and internists; nurse practitioners and nurses; medical trainees, including medical students, residents, and fellows; and other providers of health care of the postmenopausal population. **SOCIAL MEDIA ABSTRACT:** Postmenopausal women often have a thickening of the lining of the uterus found during ultrasound. Without bleeding, an endometrium <11 mm is rarely a serious problem but should be evaluated by a health care provider. Copyright © 2024. Published by Elsevier Inc.

21. **A systematic review on the impact of nutrition and possible supplementation on the deficiency of vitamin complexes, iron, omega-3-fatty acids, and lycopene in relation to increased morbidity in women after menopause.**

Authors: Wylenzek, Friederike;Buhling, Kai J. and Laakmann, Elena

Publication Date: 2024

Journal: Archives of Gynecology & Obstetrics

Abstract: A balanced and healthy diet during the menopausal transition and after menopause is crucial for women to reduce the risk for morbidities and chronic diseases due to deficiency of essential nutrients. **PURPOSE:** The objective of this study was to conduct a systematic review of studies that analyzed the impact of vitamin and nutrient deficiencies in postmenopausal women in relation to increased morbidities and chronic conditions. **METHODS:** Observational studies were searched in the databases PubMed, UpToDate, and Google Scholar. **RESULTS:** We searched 122 studies, of which 90 were included in our analysis. The meta-analysis of the data could not be performed because of the heterogeneity of the statistical methods in the included studies. In our study, we focused on the aspects of vitamin B6, vitamin B12, vitamin D, iron, omega-3-fatty acids, and lycopene, belonging to the family of carotenoids. Postmenopausal women with deficiencies of these nutrients are more vulnerable to comorbidities such as cardiovascular and cerebrovascular events, metabolic diseases, osteoporosis, obesity, cancer and neurodegenerative diseases such as Parkinson's disease, Alzheimer's disease,

depression, cognitive decline, dementia, and stroke. We concluded that women after menopause tend to have a greater probability of suffering from deficiencies in various vitamins and nutrients, and consequently have an increased risk of developing morbidities and chronic diseases. **CONCLUSION:** In conclusion, maintaining optimum serum levels of nutrients and vitamins, either through a balanced and healthy diet consuming fresh fruits, vegetables, and fats or by taking appropriate supplementation, is essential in maintaining optimal health-related quality of life and reducing the risk for women during the menopausal transition and after menopause. Nevertheless, more recent studies need to be assessed to formulate adequate recommendations to achieve positive clinical outcomes. Copyright © 2024. The Author(s).

In the News:

Prescribing of testosterone for middle-aged women 'out of control'

The Guardian, 5 July 2024

"The prescribing of testosterone for middle-aged women is "out of control" and may have long-term implications for their health, experts have warned.

They are concerned that "testosterone evangelists" on social media – including some celebrities and GPs – are giving women the impression that the hormone will reduce fatigue and improve their energy levels, as well as protecting their heart, brain, muscles and bones. But experts say the evidence only supports its use in postmenopausal women with low libido, when psychosocial causes have been ruled out."

<https://www.theguardian.com/society/article/2024/jul/05/prescribing-of-testosterone-for-middle-aged-women-out-of-control>

Latest Menopause Exchange Newsletter

Issue 100, Spring 2024

- HRT new products
- Bedding and clothing for the menopause
- Contraception for the over-40s
- Minerals at the menopause

Anyone with an interest in the menopause, midlife and post-menopausal health can receive The Menopause Exchange quarterly newsletters for FREE: www.menopause-exchange.co.uk to subscribe

Sources used:

The following were used in the creation of this bulletin: MEDLINE, Emcare, CINAHL, and the Guardian.

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