

Commentary: US Preventative Services Task Force (USPTF) update on hormone replacement therapy (Nov. 2022)

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Mainstream societies continue to promote a narrow, outdated view of hormone replacement therapy (HRT). In November of 2022, the US Preventative Services Task Force (USPSTF) published their update on hormone therapy for the primary prevention of chronic conditions and essentially restated the same recommendations against HRT for prevention that they have been promoting for 20 years. Their analysis and conclusions deserve a deeper dive.

In this update, the USPSTF states that although there were 18 clinical trials published which demonstrated benefit to brain, bone, heart, diabetes and colon cancer prevention, they choose to strongly weight their recommendations on the negative outcomes found in the Women's Health Initiative (WHI) from 2002—which is not only dated but not relevant to the iso-molecular hormone treatment Biote providers prescribe.ⁱ The Women's Health Initiative Study reported an increased risk of cardiovascular disease, invasive breast cancer, venous thromboembolism, and stroke associated with the use of the single drug PremPro® (an oral fixed dose combination of conjugated equine estrogens and medroxyprogesterone acetate). Many physicians, fearing these reported side effects, stopped prescribing HRT and its use plummeted from 50+% of all postmenopausal women to as low as 4.7% by 2010.ⁱⁱ Many patients, seeing the ongoing headlines, continue to suffer with symptoms fearing that HRT may not be safe.

We agree that PremPro has significant limitations and should not be our standard HRT treatment. However, there is a growing body of evidence that other HRT approaches (iso-molecular, transdermal, subcutaneous) are less likely to cause these negative side effects and actually improve health.ⁱⁱⁱ Lumping all HRT studies, methods and approaches together unfairly propagates the 20-year-old WHI stigma that hormones are not safe or beneficial. We wouldn't extrapolate results from a first-generation beta blocker to currently recommended treatments, so why does the house of medicine persevere in lumping all reproductive hormone medications together?

ACOG (2012), The Endocrine Society (2006), and NAMS (2022) position statements remain critical of bio-identical hormone replacement therapy. They emphasize that "Not only is evidence lacking to support superiority claims of compounded bio-identical hormones over conventional menopausal hormone therapy, but these claims also pose the additional risks of variable purity and potency and lack efficacy and safety data."^{iv} However, it is important to recognize that 503b compounding/manufacturing pharmacies like that used by Biote are regulated under the same CGMP regulations as pharmaceutical manufacturers.

Frankly, it's disappointing to see that the USPSTF has not changed their recommendations since 2017, especially with the growing body of evidence to the contrary. However, by weighting their review with publications derived from the WHI and specifically Premarin and Prempro, it is not hard to see how they came to their conclusions. In addition, it is important to differentiate 'primary prevention' as the USPSTF focused on, from "symptom treatment." The USPSTF focused their attention on prevention of chronic conditions, not for the treatment of menopausal symptoms and the impact those have on a patient's quality of life (QoL). Although a large reason for what we do is to mitigate downstream age-related disease development, it's a tall task sometimes to isolate HRT's impact given confounding variables like diet, environment, and genetics, just to name a few. The most common and measurable benefit of HRT is relief of symptoms, improvement in sense of well-being, and marked improvement in QoL. Despite the above factors the question least answered in the general clinician's office today is: how does the patient feel?

We need to consider quality of life issues that are being downplayed by societies and many of our provider-colleagues. The need to have quality with longevity is of the utmost importance.^v We need to prevent the tens of thousands of lives lost early to disease that could have been prevented or delayed with HRT.^{vi} We need to help treat these distressing and life altering symptoms of hot flashes, night sweats, insomnia, mood disorders, fatigue, joint pains, weight gain, sexual dysfunction, and many others. In addition, we may also be able to positively impact Alzheimer's disease, cardiovascular disease,^{vii} osteoporosis, and breast cancer at the same time.

ACOG and NAMS have updated their guidelines from “smallest dose for shortest time” – to a more nuanced and individualized approach to management of symptoms, but not for primary prevention of hormone-related conditions, however. NAMS in their position statement reminds us to “recommend and remind patients of the appropriate dose, duration, regimen, and route of administration required to manage symptoms and meet treatment goals.” They don't clarify what all of those recommendations should be, that's the clinician's responsibility, but at Biote we strive to do exactly what NAMS is suggesting. We educate our patients on various modes of administration and dosing of HRT while keeping the patient's symptomatology and treatment goals as measures of success. The USPSTF considers evidence quality and hard clinical outcomes in their recommendations. They rely on high quality RCTs and not specifically patient reported QoL studies. We sincerely hope that mainstream societies and the USPSTF, in addition to primary prevention of age-related disease, start to look towards a patient's overall quality of life, their day-to-day chronic symptoms and what the patient feels best alleviates them, when releasing recommendations. For the practicing clinician, these are critical factors in maintaining a healthy and long-term patient-clinician relationship.

ⁱ US Preventive Services Task Force, Mangione CM, Barry MJ, Nicholson WK, Cabana M, Caughey AB, Chelmow D, Coker TR, Davis EM, Donahue KE, Jaén CR, Kubik M, Li L, Ogedegbe G, Pbert L, Ruiz JM, Stevermer J, Wong JB. Hormone Therapy for the Primary Prevention of Chronic Conditions in Postmenopausal Persons: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2022 Nov 1;328(17):1740-1746. doi: 10.1001/jama.2022.18625. PMID: 36318127.

ⁱⁱ Langer RD. The evidence base for HRT: What can we believe? *Climacteric*. 2017;20:91-96. <http://www.tandfonline.com/doi/abs/10.1080/13697137.2017.1280251?journalCode=icmt20>. Accessed May 16, 2017.

ⁱⁱⁱ El Khoudary SR, Aggarwal B, Beckie TM, Hodis HN, Johnson AE, Langer RD, Limacher MC, Manson JE, Stefanick ML, Allison MA; American Heart Association Prevention Science Committee of the Council on Epidemiology and Prevention; and Council on Cardiovascular and Stroke Nursing. Menopause Transition and Cardiovascular Disease Risk: Implications for Timing of Early Prevention: A Scientific Statement From the American Heart Association. *Circulation*. 2020 Dec 22;142(25):e506-e532. doi: 10.1161/CIR.0000000000000912. Epub 2020 Nov 30. PMID: 33251828.

^{iv} Committee on Gynecologic Practice and the American Society for Reproductive Medicine Practice Committee. Committee opinion No. 532: compounded bioidentical menopausal hormone therapy. *Obstet Gynecol*. 2012 Aug;120(2 Pt 1):411-5. doi: 10.1097/AOG.0b013e318268049e. PMID: 22825109.

^v Donovitz, G.; Schwartz, E.; Miller, C.; Barber, M.; Comite, F.; Janson, K.; Leake, J.; Lee, E.; Life, J.; Martinez, L.; et al. Testosterone Insufficiency and Treatment in Women: International Expert Consensus. *MSP Med. Salud Publica* 2019. Available online: <https://medicinaysaludpublica.com/noticias/general/testosterone-insufficiency-and-treatment-in-women-international-expert-consensus/5093>.

^{vi} Sarrel, P.M.; Njike, V.Y.; Vinante, V.; Katz, D.L. The Mortality Toll of Estrogen Avoidance: An Analysis of Excess Deaths Among Hysterectomized Women Aged 50 to 59 Years. *Am. J. Public Health* 2013.

^{vii} Saleh, R.N.M., Hornberger, M., Ritchie, C.W. *et al*. Hormone replacement therapy is associated with improved cognition and larger brain volumes in at-risk *APOE4* women: results from the European Prevention of Alzheimer's Disease (EPAD) cohort. *Alz Res Therapy* **15**, 10 (2023).