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Review Article

Menopausal Hormone Therapy: Clinical Guidance for Symptom Relief and Genitourinary Management

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Abstract

Menopause occurs at a mean age of 51 years, with 95% of women transitioning between ages 45 and 55. Declining ovarian estrogen production leads to low serum estradiol and vasomotor symptoms in most women, while approximately half develop genitourinary syndrome of menopause (GSM) characterized by vaginal dryness and dyspareunia [1]. Menopausal hormone therapy (MHT) employs unopposed estrogen for women post-hysterectomy and combined estrogen-progestin therapy for those with an intact uterus to prevent endometrial hyperplasia [2]. This article integrates the latest evidence on indications, formulations, dosing, and safety considerations for systemic and local MHT.

Keywords: Menopause, Menopausal transition, Vasomotor symptoms, Estradiol, Estrogen deficiency, Dyspareunia.

INTRODUCTION

Menopausal transition manifests with vasomotor symptoms, mood lability, sleep disturbances, joint aches, and GSM. Systemic estrogen is the most effective therapy for hot flashes and associated systemic symptoms, whereas low-dose vaginal estrogen targets GSM with minimal systemic exposure[3]. Individualized MHT decisions consider patient age, time since menopause, symptom severity, comorbidities, and personal risk factors [2,4,5]

Clinical Indications

- **Vasomotor Symptoms (VMS):** Moderate to severe hot flashes and night sweats that impair sleep and quality of life [3].
- **Mood Lability/Depression:** Estrogen alone or combined with SSRIs improves depressive symptoms during the menopausal transition [4].
- **Sleep Disturbances:** Beneficial when related to nighttime VMS or coexisting anxiety/depression [3].
- **Joint Aches/Pains:** Women with baseline joint discomfort experienced relief with estrogen-progestin or estrogen alone in WHI analyses [4].
- **Genitourinary Syndrome of Menopause (GSM):** Low-dose vaginal estrogen relieves vaginal dryness, dyspareunia, and urinary symptoms without systemic progestin [5].
- **Timing:** Initiation is safest in healthy women under age 60 or within 10 years of menopause onset, minimizing cardiovascular and thrombotic risks [2, 6]

Estrogen Therapy

All estrogen preparations effectively alleviate vasomotor symptoms [1]. Selection hinges on patient preference, comorbidities, cost, and availability.

Available Preparations

- Oral tablets
- Transdermal patches
- Topical gels and lotions
- Vaginal rings
- Subcutaneous implants

Preferred Estrogen

17-β-estradiol is bioidentical to ovarian estrogen and is preferred over conjugated equine estrogens due to predictable pharmacokinetics and lower thrombotic risk [2].

Oral Versus Transdermal Estradiol

Feature	Oral Estradiol	Transdermal Estradiol
First-pass hepatic metabolism	Yes	No
Lipids	↑ HDL, ↓ LDL (no proven clinical benefit)	Neutral
Triglycerides	↑	Minimal change
SHBG/TBG/CBG	↑ SHBG, ↑ TBG, ↑ CBG; ↓ free testosterone and T_4	Minimal impact
Thrombosis & stroke risk	Higher; contraindicated in thrombophilia/VTE	Lower; preferred in migraine with aura and VTE

Oral estrogen is contraindicated in women with hypertriglyceridemia, active gallbladder disease, or known thrombophilia [2].

Dosing Strategies

- **Standard Dose:** 1 mg oral or 0.05 mg transdermal 17-β-estradiol daily; adequate for most women [2].
- **Low-Dose Initiation:** 0.5 mg oral or 0.025 mg transdermal daily, titrating to symptom relief; associated with fewer side effects and lower VTE/stroke risk [1, 4].
- **Higher Dose:** For women under age 45 post-bilateral oophorectomy or primary ovarian insufficiency (e.g., 2 mg oral or 0.1 mg transdermal) for 2–3 years before tapering [2].

Lower doses reduce vaginal bleeding, breast tenderness, and adverse effects on coagulation and inflammatory markers [2].

Progestin Therapy

Women with an intact uterus on systemic estrogen require progestin to prevent endometrial hyperplasia [2].

- **Micronized Progesterone:**
  - Cyclic: 200 mg daily for 12 days/month
  - Continuous: 100 mg daily
- **Medroxyprogesterone Acetate (MPA):** 2.5 mg daily; protective but linked to increased CHD and breast cancer risk when combined with conjugated estrogen [2].
- **Alternatives:** Vaginal progesterone pessaries or levonorgestrel-releasing IUD in those intolerants of oral regimens [4].

Women on very low estrogen doses (e.g., 0.014 mg transdermal) may require only two 12-day progestin courses every six months [2].

Tibolone

Tibolone, a synthetic steroid metabolized to estrogenic, progestogenic, and androgenic compounds, reduces VMS and preserves bone density but is less effective than standard estrogen therapy. It may modestly improve sexual function but increases stroke risk in women over age 60 and breast cancer recurrence in survivors [6].

Contraindications

MHT is contraindicated in women with:

- History of breast cancer [2]
- Coronary heart disease or previous stroke/VTE [2]
- Active liver disease [2]
- Unexplained vaginal bleeding [2]
- High-risk endometrial cancer [2]
- Thrombotic disorders (e.g., factor V Leiden) [2]

CONCLUSION

MHT remains the gold standard for managing vasomotor symptoms, mood disturbances, sleep disruption, and GSM when tailored to individual risk profiles. Route, dose, and need for progestin should be individualized through shared decision-making, aligning with the latest NICE, NAMS, and international consensus guidelines [2, 3, 5, 6]

REFERENCES

1. Martin KA, Barbieri RL. Treatment of menopausal symptoms with hormone therapy. UpToDate. Nov 20, 2023.
2. Mukherjee A, Davis SR. Update on menopause hormone therapy: current indications and unanswered questions. Clin Endocrinol. 2025; 114:1–18. doi:10.1111/cen.15211
3. National Institute for Health and Care Excellence. Menopause: identification and management. NICE Guideline [NG23]. London: NICE; 2024.
4. Crandall CJ, Mehta JM, Manson JE. Management of menopausal symptoms: a review. JAMA. 2023;329(5):401–412. doi:10.1001/jama.2023.2801054
5. The North American Menopause Society. 2023 Hormone Therapy Position Statement. Menopause. 2023;30(1):1–10. doi:10.1097/GME.0000000000002165
6. The North American Menopause Society. Management of Genitourinary Syndrome of Menopause. Menopause. 2020;27(12):1417–1443.
7. North American Society for Menopause Specialist. Progestogen options and alternatives in MHT. Menopause Pract. 2022;14(2):115–123.