

Menopause & HRT...

More Than Hot Flashes

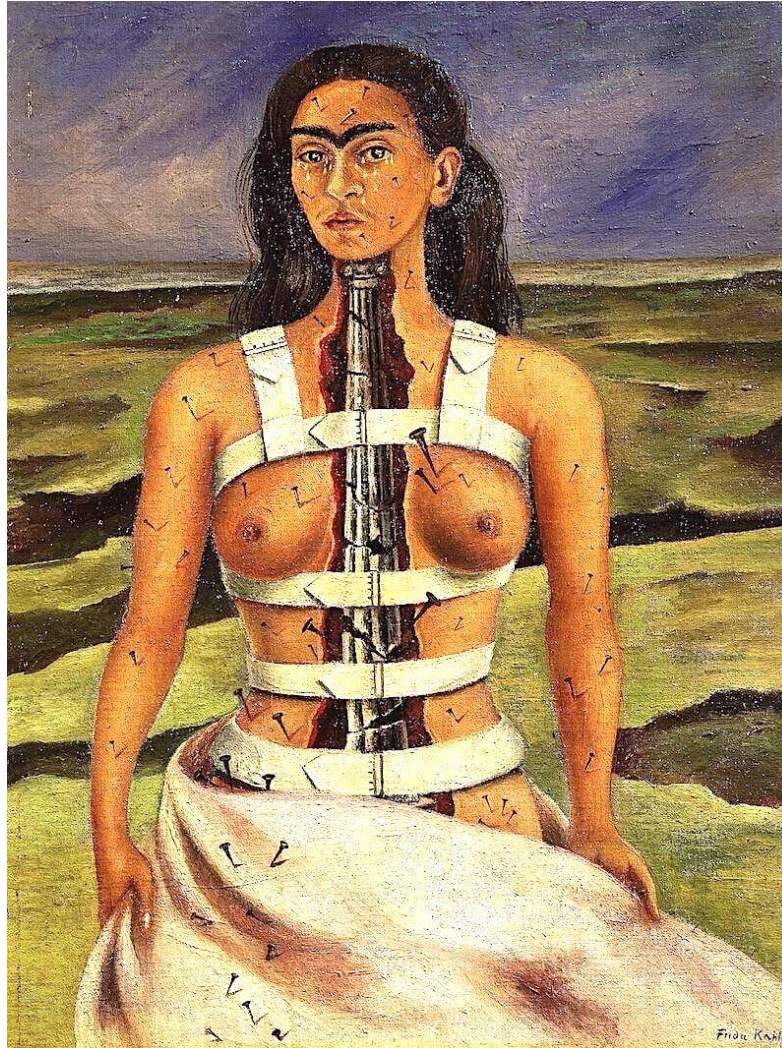


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LEARNING OBJECTIVES

1. Categorize common symptoms of menopause.
2. Identify novel treatments for menopause related symptoms.
3. Review menopause hormonal therapy treatment options.
4. Contrast applications, indications and risks of menopause hormonal therapy.

DISCLOSURES



OUTLINE

WHAT

Definition
Symptoms
Treatment

HOW

Guidelines
Recommendations

WHO

Patient profile
EBM

WHY

Risks
Benefits
Importance

WHY



WHY

Competency in Menopause Management: Whither Goest the Internist?

Richard J. Santen, MD,¹ Cynthia A. Stuenkel, MD,² Henry G. Burger, MD, FRACP,³
and JoAnn E. Manson, MD, DrPH⁴

Abstract

Background: After publication of the Women's Health Initiative study in 2002, use of menopausal hormone therapy (HT) has declined by nearly 80% worldwide and internists now play only a limited role in menopause management. Over the past decade, new data have increased our knowledge of the multiple effects and mechanisms of HT.

Methods: Existing literature was reviewed.

Results: A consensus has emerged that the benefits of HT outweigh the risks for the relief of symptoms in women who have recently undergone menopause and are not at excess risk of breast cancer and cardiovascular disease. Non-hormonal agents, selective estrogen receptor modulators (SERMs), and tibolone are also useful in management. Factors entering into the decision-making process regarding menopause management are increasingly complex and involve consideration of effects on multiple systems and potential disease-related events. These considerations suggest that internists trained to evaluate and integrate factors influencing multiple organ systems should re-engage in menopause management. Most internists currently lack the core competencies and experience necessary to address menopausal issues and meet the needs of women who have completed their reproductive years. We believe that this situation is detrimental to women's health, leads to fragmented care, and should change.

Menopause Management Knowledge in Postgraduate Family Medicine, Internal Medicine, and Obstetrics and Gynecology Residents: A Cross-Sectional Survey

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Karla S. Fohmader Hilsaca, PhD; and Stephanie S. Faubion, MD

Abstract

Objective: To evaluate the knowledge of and nature of training for menopause management in postgraduate residents.

Participants and Methods: A cross-sectional, anonymous survey was e-mailed to trainees at all postgraduate levels in family medicine, internal medicine, and obstetrics and gynecology at US residency programs between January 11, and July 4, 2017. The survey was adapted from an existing instrument and included questions regarding knowledge of hormone therapy (HT) and other menopause management strategies, availability and type of training in menopause medicine, and demographic information.

Results: Of the 703 surveys sent, a total of 183 residents representing 20 US residency programs responded (26.0% response rate). Most trainees were between 26 and 30 years of age (133 of 172 [77.3%]), female (114 of 173 [65.9%]), and believed it was important or very important to be trained to manage menopause (165 of 176 [93.8%]). Although most respondents answered some of the menopause competency questions correctly, important gaps were identified. Of 183 participants, 63 (34.4%) indicated they would not offer HT to a symptomatic, newly menopausal woman without contraindications, and only 71 (38.7%) indicated they would prescribe HT until the natural age of menopause to a prematurely menopausal woman. Of 177 respondents, 36 (20.3%) reported not receiving any menopause lectures during residency, and only 12 of 177 (6.8%) reported feeling adequately prepared to manage women experiencing menopause.

Conclusion: Family medicine, internal medicine, and obstetrics and gynecology residency trainees recognize the importance of training in menopause management, but important knowledge gaps exist. Investing in the education of future clinicians to provide evidence-based, comprehensive menopause management for the growing population of midlife women is a priority.

MENOPAUSE

Definition

Women older than 45 years who:

- a) 1 year after last menses
- b) TAH, BSO
- c) >55 yo TAH, ovaries preserved
- d) TAH, ovaries preserved, \uparrow FSH, \uparrow LH, \downarrow E₂ serially

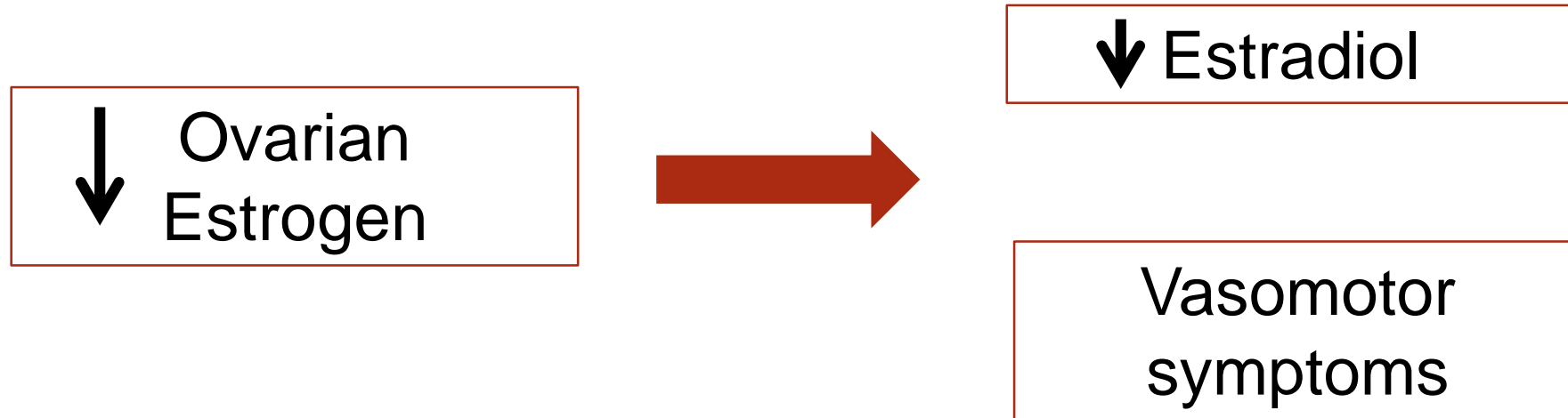
MENOPAUSE

Definition

Mean age: **51 years**

Final menstrual period (FMP) **45 – 55 years**

MENOPAUSE



MENOPAUSE

Menarche					FMP (0)					
Stage	-5	-4	-3b	-3a	-2	-1	+1 a	+1b	+1c	+2
Terminology	REPRODUCTIVE				MENOPAUSAL TRANSITION		POSTMENOPAUSE			
	Early	Peak	Late		Early	Late	Early			Late
					Perimenopause					
Duration	variable				variable	1-3 years	2 years (1+1)	3-6 years	Remaining lifespan	
PRINCIPAL CRITERIA										
Menstrual Cycle	Variable to regular	Regular	Regular	Subtle changes in Flow/ Length	Variable Length Persistent ≥7- day difference in length of consecutive cycles	Interval of amenorrhea of >=60 days				
SUPPORTIVE CRITERIA										
Endocrine										
FSH			Low	Variable*	↑ Variable*	↑ >25 IU/L**	↑ Variable	Stabilizes		
AMH			Low	Low	Low	Low	Low	Very Low		
Inhibin B			Low	Low	Low	Low	Low	Very Low		
Antral Follicle Count			Low	Low	Low	Low	Very Low	Very Low		
DESCRIPTIVE CHARACTERISTICS										
Symptoms						Vasomotor symptoms Likely	Vasomotor symptoms Most Likely			Increasing symptoms of urogenital atrophy

* Blood draw on cycle days 2-5 ↑ = elevated

**Approximate expected level based on assays using current international pituitary standard⁶⁷⁻⁶⁹

FIG. 2. The Stages of Reproductive Aging Workshop + 10 staging system for reproductive aging in women.

MENOPAUSE

Symptoms

Hot flashes (80%)

Sleep disturbance (32 – 40%)

Depression

Vaginal dryness

Reduced sexual function

Cognitive changes

Joint pain

Breast pain

Menstrual migraines

Bone loss

CVD

Dementia

Osteoarthritis

Body composition

Skin changes

Balance

MENOPAUSE

TREATMENT

Menopause
Hormonal
Therapy

Vaginal
estrogen

Antidepressants

Gabapentin

α -Blockers

Non-
prescription

MENOPAUSE

Menopause Hormonal Therapy (MHT)

=

Hormone therapy

=

Hormonal replacement therapy

MHT

- Unopposed estrogen
- Combined estrogen-progestin

MENOPAUSE

WOMAN'S HEALTH INITIATIVE (WHI)

- Sponsored by the National Heart, Lung, and Blood Institute (NHLBI)
- Long-term national health study strategies for preventing heart disease, breast and colorectal cancer, and osteoporosis in postmenopausal women
- Three parts—a clinical trial, an observational study, and a community prevention study

MENOPAUSE

WOMAN'S HEALTH INITIATIVE (WHI)

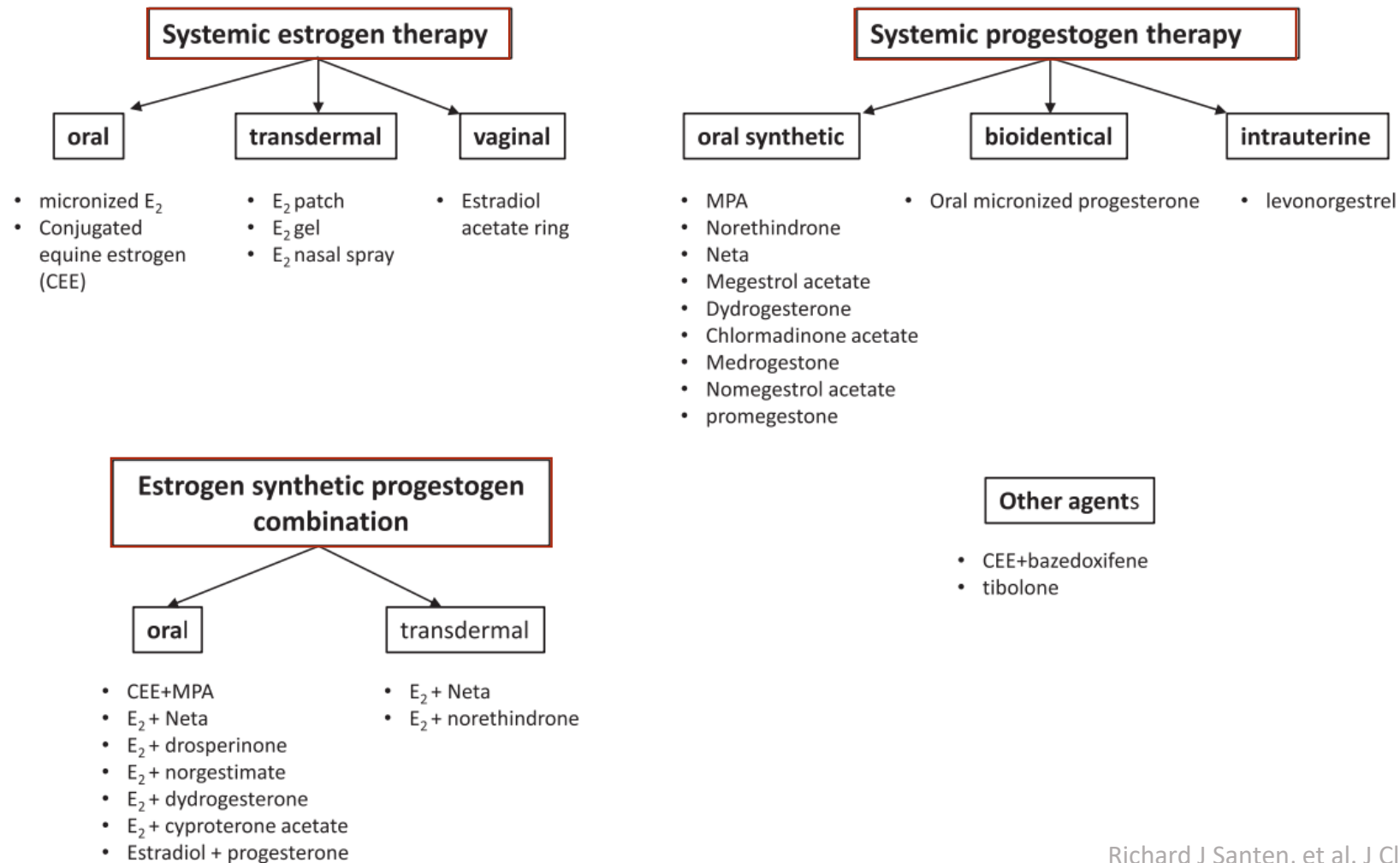
- 160,000 post-menopausal women
- 50 – 79 yo
- 15 years

↑
Breast cancer
Heart disease
Stroke
Blood clots
Urinary incontinence

↓
Fractures
Colorectal CA

MHT

HORMONES



MHT

Drug and US brand name	Available strengths
Estrogen preparations and doses for the management of vasomotor symptoms	
Oral estradiol*	
Estrace [¶]	0.5, 1, 2 mg
Oral esterified estrogen*	
Menest	0.3, 0.625, 1.25 mg
Oral estropipate	
Generic (previously available as Ortho-Est [†])	0.75, 1.5, 3 mg estropipate (equivalent to 0.625, 1.25, 2.5 mg conjugated equine estrogen)
Oral conjugated equine estrogen (CEE)*	
Premarin	0.3, 0.45, 0.625, 0.9, 1.25 mg
Oral conjugated synthetic estrogens (A)*	
A: Cenestin	0.3, 0.45, 0.625, 0.9 mg
Oral estrogen-progestin combinations	
Prempro ^Δ	0.3 mg CEE/1.5 mg medroxyprogesterone, 0.45/1.5 mg, 0.625/2.5 mg, 0.625/5 mg
Prefest	1 mg estradiol/0.09 mg norgestimate (cyclic)
Activella, Amabelz, Mimvey [¶]	0.5 mg estradiol/0.1 mg norethindrone acetate, 1 mg/0.5 mg
FemHRT, Jevantique Lo	2.5 mcg ethinyl estradiol/0.5 mg norethindrone acetate
Jinteli	5 mcg ethinyl estradiol/1 mg norethindrone acetate
Angeliq	0.5 mg estradiol/0.25 mg drospirenone, 1 mg/0.5 mg
Oral conjugated equine estrogens and bazedoxifene	
Duavee	0.45 mg CEE/20 mg bazedoxifene

MHT

Drug and US brand name	Available strengths
Estrogen preparations and doses for the management of vasomotor symptoms (continued)	
Estradiol patches*	
Alora (twice weekly)	0.025, 0.05, 0.075, 0.1 mg per day
Generic (twice weekly)	0.025, 0.0375, 0.05, 0.075, 0.1 mg per day
Minivelle (twice weekly)	0.025, 0.0375, 0.05, 0.075, 0.1 mg per day
Vivelle-Dot (twice weekly)	0.025, 0.0375, 0.05, 0.075, 0.1 mg per day
Climara [®] (weekly)	0.025, 0.0375, 0.05, 0.06, 0.075, 0.1 mg per day
Menostar (weekly)	0.014 mg per day
Estrogen-progestin patches	
Combi-Patch (twice weekly)	0.05 mg estradiol/0.14 mg norethindrone, 0.05 mg/0.25 mg per day
Climara Pro (weekly)	0.045 mg estradiol/0.015 mg levonorgestrel per day
Topical gel*	
EstroGel 0.06%	0.75 mg estradiol per pump
Elestrin 0.06%	0.52 mg estradiol per pump
Divigel 0.1%	0.25, 0.5, 1 mg estradiol per pouch
Topical spray*	
EvaMist	1.53 mg estradiol per spray
Intravaginal rings*	
Femring	0.05 mg estradiol per day over three months, 0.1 mg estradiol per day over three months
Depot options (oil, intramuscular)	
Estradiol cypionate	
Depo-Estradiol	5 mg/mL (5 mL)
Estradiol valerate	
Delestrogen	10, 20, or 40 mg/mL (all 5 mL)
Vaginal estrogen preparations for treatment of genitourinary atrophy (inadequate dose to relieve vasomotor symptoms)	
Vaginal ring	
Estring	7.5 mcg estradiol per day, released over three months
Vaginal tablet	
Vagifem	10 mcg estradiol per vaginal tablet
Yuvafem	10 mcg estradiol per vaginal tablet
Vaginal cream	
Estrace 0.01%	0.1 mg estradiol per gram cream
Premarin vaginal	0.625 mg CEE per gram cream

Martin, Kathryn. 2020. UptoDate. Available from <https://www-uptodate-com.ezproxy.lib.utah.edu/contents/treatment-of-menopausal-symptoms-with-hormone-therapy>

MHT

Table 5. Commonly Prescribed Hormone Therapies

Preparation	Doses	Comments
Systemic estrogen therapies^a		
Oral estrogen tablets		
Micronized E2	0.5, 1.0, 2.0 mg/d	
Estradiol valerate ^b	1.5 mg/d	
CEE	0.3, 0.45, 0.625 mg/d	Higher doses available Preparation used in WHI
Transdermal estrogens		
Estradiol patch	0.025 to 0.1 mg once or twice weekly depending on preparation 0.014 mg/wk	Corresponds to 0.5 to 2.0 mg estradiol tablets Diffusion can be different from one patch to another Preserved bone in women >60 y old
Estradiol percutaneous gel	0.25–1.5 mg qd	Corresponds to 0.5 to 2.0 mg estradiol tablets Can be transferred to persons and pets by skin contact
Estradiol transdermal spray	1.5 mg qd	Estradiol via spray Can be transferred to persons and pets by skin contact
Vaginal ring		
Estradiol acetate	0.05–0.10 mg/d	Systemic levels of estradiol provide relief of VMS; 90-d duration/ring
Progestogen therapies		
Oral progestin tablets		
Medroxyprogesterone acetate	2.5, 5, 10 mg/d	Utilized in WHI
Norethindrone	0.35 mg/d	
Neta	5.0 mg/d	
Megestrol acetate	20, 40 mg/d	
Dydrogesterone ^b	10 mg/d	
Chlormadinone acetate ^b	5, 10 mg/d	
Medrogestone ^b	5 mg/d	
Nomegestrol acetate ^b	3.75, 5 mg/d	
Promegestone ^b	0.125, 0.25, 0.5 mg/d	
Oral progesterone capsule		
Micronized progesterone	100, 200 mg/d	In peanut oil; avoid if peanut allergy. May cause drowsiness and should be taken at bedtime
Intrauterine system progestin^c		
LNorg	20 µg released/d 6 µg/d	IUD for 5-y use IUD for 3-y use
Vaginal gel progesterone ^c	4%, 8%	45- or 90-mg applicator
Combination hormone therapies		
Oral		
CEE + MPA	0.3–0.625 mg/1.5–5 mg/d	Cyclic or continuous
E2 + Neta	0.5–1 mg/0.1–0.5 mg/d	Continuous
E2 + drospirenone	0.5–1 mg/0.25–1 mg/d	Continuous
E2 + norgestimate	1 mg/0.09 mg/d	Cycle 3 d E alone, 3 d E + progesterone
E2 + dydrogesterone ^b	1–2 mg/5–10 mg/d	Cyclic and continuous
E2 + cyproterone acetate ^b	2 mg/1 mg/d	Continuous
E2 + MPA ^b	1–2 mg/2–10 mg/d	Continuous
CEE + BZA ^d	0.45 mg/20 mg/d	Continuous
Transdermal		
E2 + Neta	50 µg/0.14–0.25 mg/patch	Twice weekly
E2 + LNorg	45 µg/0.015 mg/patch	Once weekly

HOW

Real life hot flashes...

- 49 yo F healthy. Sx 6 mo + mood swings. LMP 4 mo ago.
- 60 yo F healthy. FMP 3 years ago. Sx now getting worse.
- 56 yo F w HTN, depression and anxiety.
- 67 yo F w High BP and severe depression on MHT x 7 years wants refill.

HOW

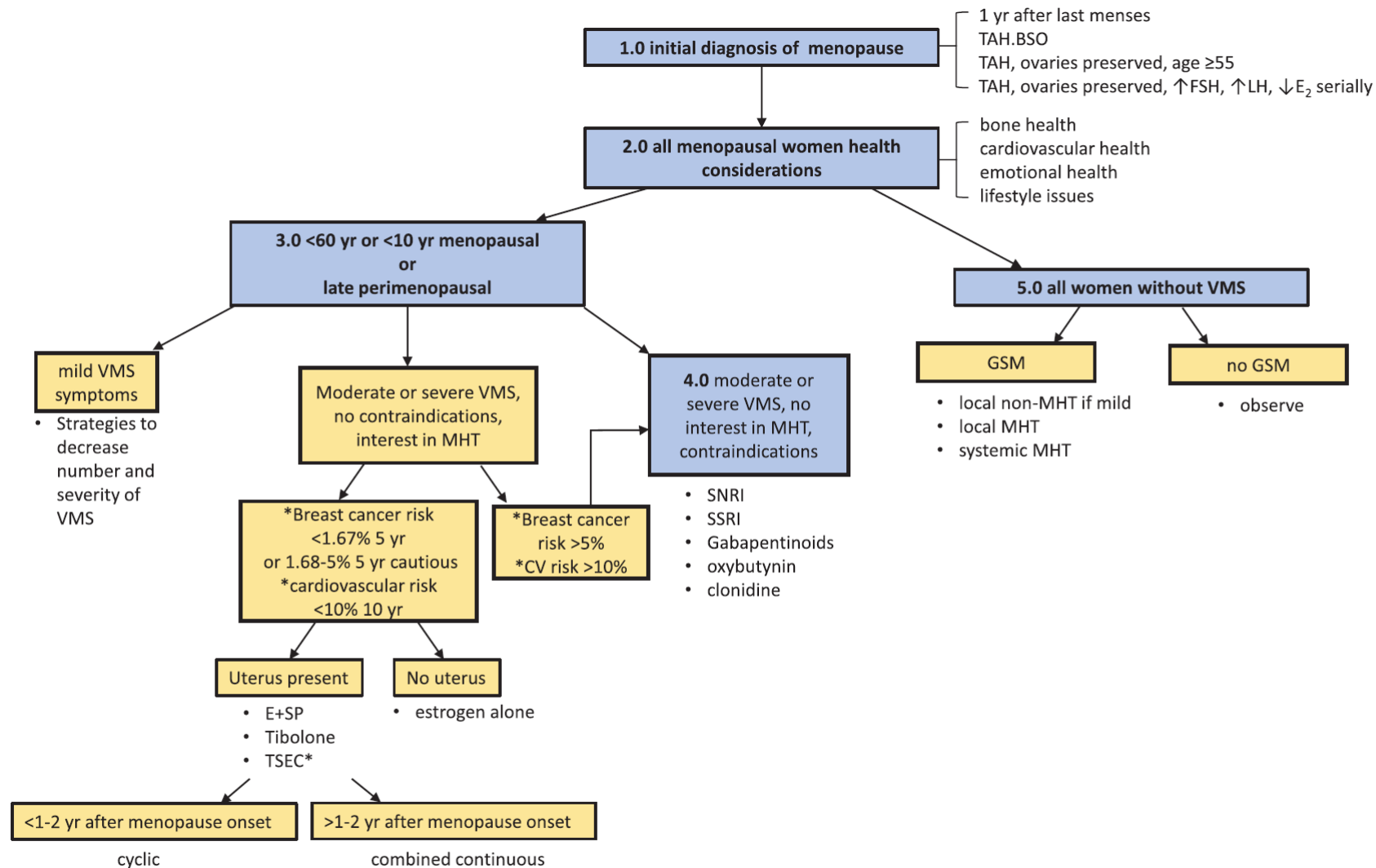


Figure 1. A step-by-step approach to the management of menopause occurring within the past 10 years or at age younger than 60. Approach recommended in the Endocrine Society Guidelines. From Stuenkel. et al (7).

HOW

Oral vs Transdermal Estrogen



HOW

Estrogen dosing

ORAL 17 β estradiol 1 mg/day = 0.65MG/day ORAL CONJUGATED

0.05 mg/day TRANSDERMAL

Start LOW

Oral 0.5 mg/day / transdermal 0.025 mg/day



HOW

Estrogen dosing

	ORAL	TRANSDERMAL
Lipids	↑ HDL ↓ LDL ↑ Triglycerides	↓ HDL ↓ LDL ↓ Triglycerides
Sex hormone-binding globulin	↑ ↑ ↑ ↓ Free testosterone	↑
Thyroxine-binding globulin	↑	↑

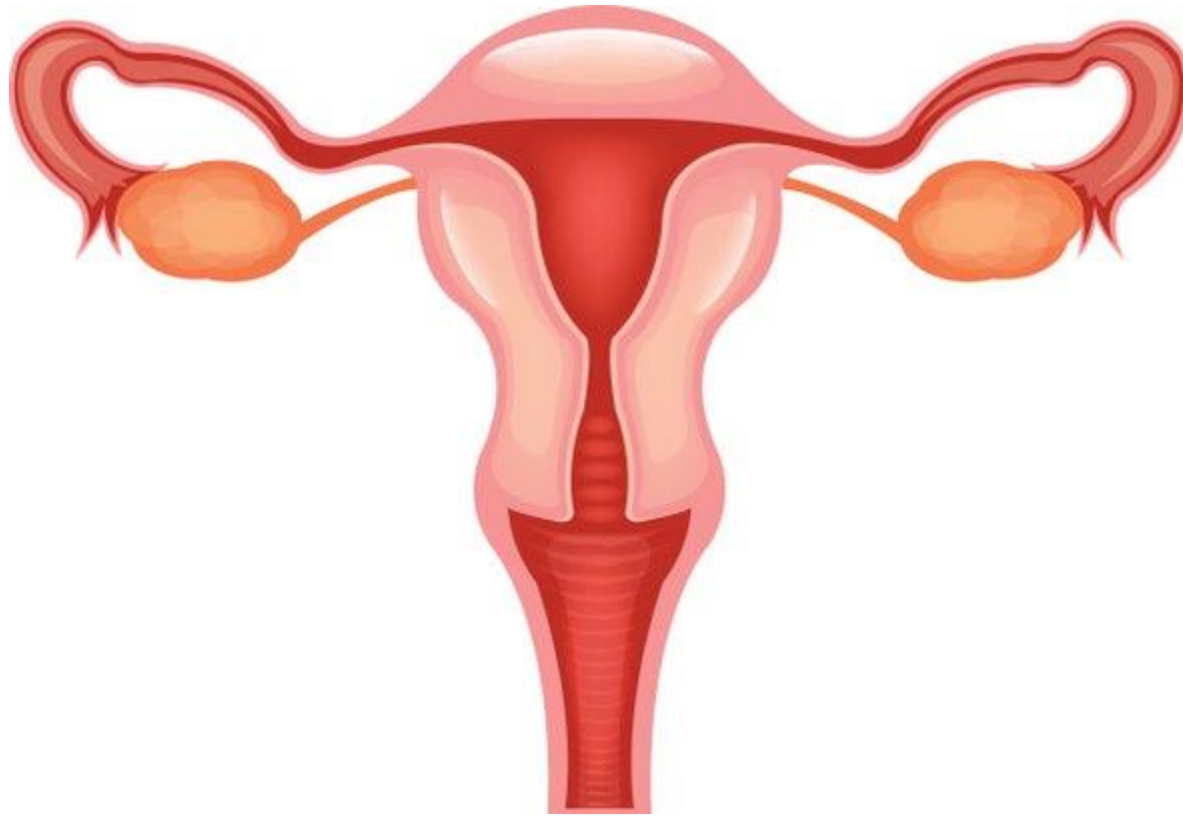
Adami, S et al. Nov1993 Maturitas;17(3):191-6

[Akihiko Wakatsuki](#), et al. Sep 2002.Circulation. 2002;106:1771–1776

Martin, Kathryn. 2020. UptoDate. Available from <https://www.uptodate-com.ezproxy.lib.utah.edu/contents/treatment-of-menopausal-symptoms-with-hormone-therapy>

HOW

PROGESTINS



HOW

PROGESTINS



Cyclic = 200mg/day x 12 days/month
Continuous = 100mg/day

Continuous = 2.5mg/day

HOW

PROGESTINS



***Endometrial data safety limited**

WHY

Real life hot flashes...

- 49 yo F healthy. Sx 6 mo + mood swings. LMP 4 mo ago.
- 60 yo F healthy. FMP 3 years ago. Sx now getting worse.
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WHY

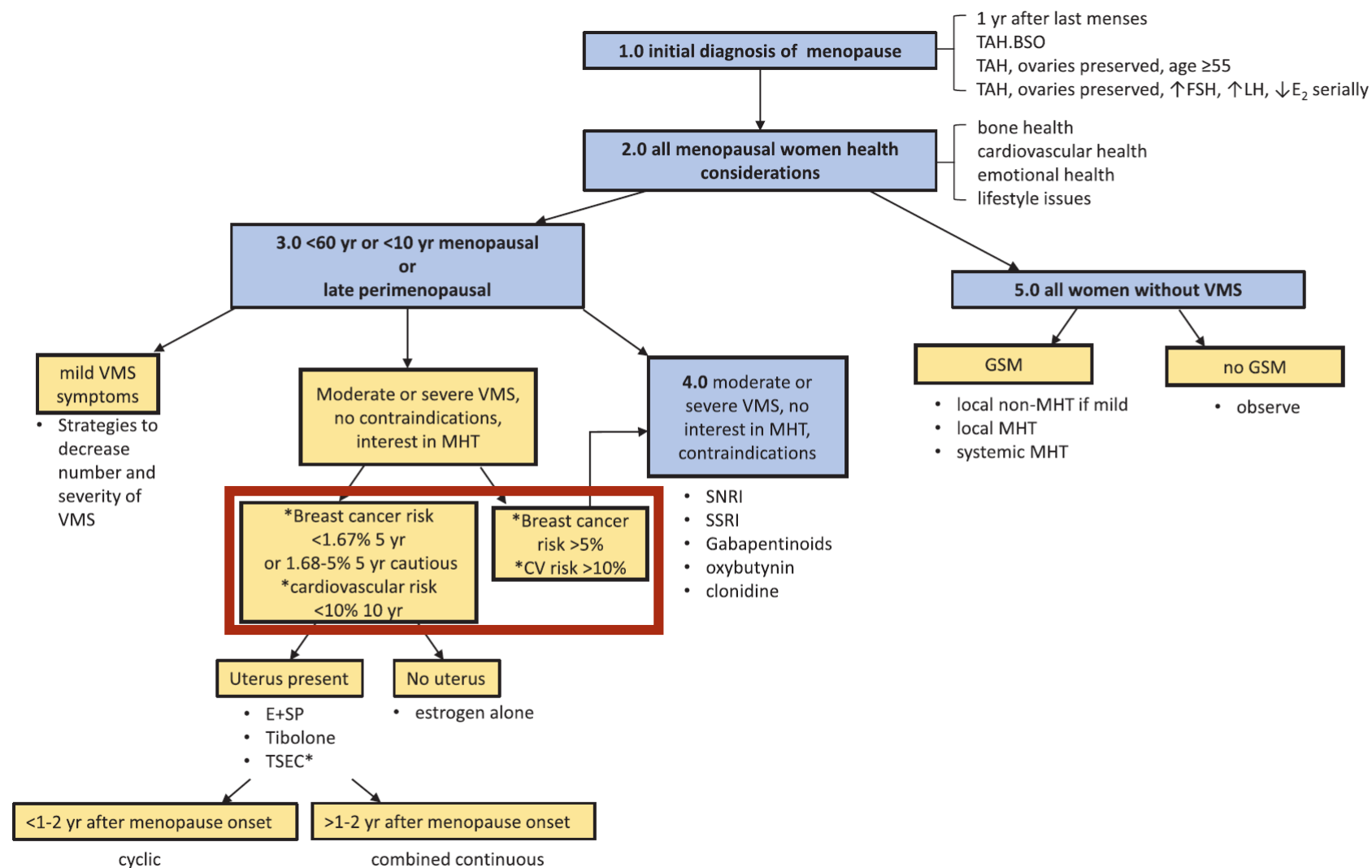


Figure 1. A step-by-step approach to the management of menopause occurring within the past 10 years or at age younger than 60. Approach recommended in the Endocrine Society Guidelines. From Stuenkel. et al (7).

RISK EVALUATION

Table 6. Evaluating CVD Risk in Women
Contemplating MHT

10-y CVD Risk	Years Since Menopause Onset	
	<5 y	6 to 10 y
Low (<5%)	MHT ok	MHT ok
Moderate (5–10%)	MHT ok (choose transdermal)	MHT ok (choose transdermal)
High (>10%) ^a	Avoid MHT	Avoid MHT

CVD risk calculated by ACC/AHA Cardiovascular Risk Calculator (144). Methods to calculate risk and risk stratification vary among countries. Derived from J. E. Manson: Current recommendations: what is the clinician to do? *Fertil Steril*. 2014;101:916–921 (63), with permission. © Elsevier Inc.

^a High risk includes known MI, stroke, peripheral artery disease, etc.

RISK EVALUATION

Table 7. Breast Cancer Risk Cutoffs for Counseling Before Recommending MHT^a

Risk Category ^a	5-y NCI or IBIS Breast Cancer Risk Assessment, %	Suggested Approach
Low	<1.67	MHT ok
Intermediate	1.67–5	Caution ^b
High	>5	Avoid

Abbreviations: IBIS, International Breast Intervention Study; NCI, National Cancer Institute.

^a Categories here are newly defined for these guidelines and based on recommendations published for use of antiestrogens for breast cancer prevention (126, 153, 322, 323). The assumption is that candidates for breast cancer prevention with antiestrogens should not be candidates for initiating MHT. Method to calculate risk varies among countries.

^b Caution indicates need for detailed counseling regarding anticipated benefits and risks of MHT with strong consideration of nonhormonal therapies for symptom relief, and possible consideration of chemopreventive strategies for women who meet suggested criteria.

MRT



COST & COVERAGE

Utah Medicaid Preferred Drug List - Effective November 1, 2020

Estrogens							
Oral Single Ingredient							
Preferred Drugs	Status	Type	Last Update	Limits	Mandatory 3-Month	Brand Required	Additional Note
estradiol	Preferred	Generic	10/01/11				
Premarin	Preferred	Brand	01/01/17				
Non Preferred Drugs	Status	Type	Last Update	Limits	Required Prior Authorization Form	Brand Required	Additional Note
Estrace	Non Preferred	Brand	10/01/11		Medication Coverage Exception		
estropipate	Non Preferred	Generic	01/01/18		Medication Coverage Exception		
Menest	Non Preferred	Brand	01/01/20		Medication Coverage Exception		
Oral Combination							
Preferred Drugs	Status	Type	Last Update	Limits	Mandatory 3-Month	Brand Required	Additional Note
Angeliq	Preferred	Brand	01/01/19				
Premphase	Preferred	Brand	01/01/17				
Prempro	Preferred	Brand	10/01/11				
Non Preferred Drugs	Status	Type	Last Update	Limits	Required Prior Authorization Form	Brand Required	Additional Note
Activella	Non Preferred	Brand	01/01/19		Medication Coverage Exception		
amabelz	Non Preferred	Generic	01/01/18		Medication Coverage Exception		
Duavee	Non Preferred	Brand	11/01/16		Medication Coverage Exception		
estradiol/norethindrone	Non Preferred	Generic	01/01/18		Medication Coverage Exception		
FemHRT	Non Preferred	Brand	12/01/16		Medication Coverage Exception		
fyavolv	Non Preferred	Generic	11/01/16		Medication Coverage Exception		
jevantique	Non Preferred	Generic	01/01/18		Medication Coverage Exception		
jinteli	Non Preferred	Generic	10/01/11		Medication Coverage Exception		
lopreeza	Non Preferred	Generic	05/01/19		Medication Coverage Exception		
mimvey	Non Preferred	Generic	10/01/11		Medication Coverage Exception		
mimvey lo	Non Preferred	Generic	10/01/11		Medication Coverage Exception		
Prefest	Non Preferred	Brand	10/01/11		Medication Coverage Exception		

COST & COVERAGE


Utah Medicaid Preferred Drug List - Effective November 1, 2020

Topical & Miscellaneous							
Preferred Drugs	Status	Type	Last Update	Limits	Mandatory 3-Month	Brand Required	Additional Note
Climara Pro	Preferred	Brand	01/01/16				
Combipatch patch	Preferred	Brand	01/01/14				
Divigel	Preferred	Brand	01/01/16				
Elestrin gel	Preferred	Brand	01/01/18				
Evamist spray	Preferred	Brand	01/01/19				
Menostar	Preferred	Brand	01/01/19				
Non Preferred Drugs	Status	Type	Last Update	Limits	Required Prior Authorization Form	Brand Required	Additional Note
Alora patch	Non Preferred	Brand	01/01/20		Medication Coverage Exception		
Climara patch	Non Preferred	Brand	01/01/16		Medication Coverage Exception		
estradiol patch	Non Preferred	Generic	10/01/11		Medication Coverage Exception		
Minivelle patch	Non Preferred	Brand	01/01/20		Medication Coverage Exception		
Vivelle-DOT patch	Non Preferred	Brand	01/01/18		Medication Coverage Exception		
Vaginal							
Preferred Drugs	Status	Type	Last Update	Limits	Mandatory 3-Month	Brand Required	Additional Note
Estring	Preferred	Brand	01/01/20		90 Day Supply Required		
Femring	Preferred	Brand	01/02/20		90 Day Supply Required		
Premarin cream	Preferred	Brand	10/01/11				
Vagifem	Preferred	Brand	01/01/17			Vagifem	
Non Preferred Drugs	Status	Type	Last Update	Limits	Required Prior Authorization Form	Brand Required	Additional Note
Estrace	Non Preferred	Brand	02/01/18		Medication Coverage Exception		
estradiol cream	Non Preferred	Generic	02/01/18		Medication Coverage Exception		
estradiol vaginal tablet	Non Preferred	Generic	01/01/17		Medication Coverage Exception	Vagifem	

COST & COVERAGE

Drug Name	Tier	Requirements/Limits
DUAVEE ORAL TABLET 0.45-20 MG	Tier 3	RM
estradiol oral tablet 0.5 mg, 1 mg, 2 mg	Tier 1	RM
estradiol transdermal patch twice weekly 0.025 mg/24hr, 0.0375 mg/24hr, 0.05 mg/24hr, 0.075 mg/24hr, 0.1 mg/24hr	Tier 2	RM; QL (8 EA per 30 days)
estradiol transdermal patch weekly 0.025 mg/24hr, 0.0375 mg/24hr, 0.05 mg/24hr, 0.06 mg/24hr, 0.075 mg/24hr, 0.1 mg/24hr	Tier 2	RM; QL (4 EA per 28 days)
estradiol vaginal cream 0.1 mg/gm	Tier 2	RM
estradiol vaginal tablet 10 mcg	Tier 2	RM
estradiol valerate intramuscular oil 20 mg/ml, 40 mg/ml	Tier 2	RO
etonogestrel-ethinyl estradiol vaginal ring 0.12-0.015 mg/24hr	Tier 2	RM
gianvi oral tablet 3-0.02 mg	Tier 2	RM
INTRAROSA VAGINAL INSERT 6.5 MG	Tier 4	RM
junel fe 1.5/30 oral tablet 1.5-30 mg-mcg	Tier 2	RM
junel fe 1/20 oral tablet 1-20 mg-mcg	Tier 2	RM
kelnor 1/35 oral tablet 1-35 mg-mcg	Tier 2	RM
levonorgestrel-ethinyl estrad oral tablet 0.1-20 mg-mcg	Tier 2	RM
levonorg-eth estrad triphasic oral tablet 50-30/75-40/ 125-30 mcg	Tier 2	RM
levora 0.15/30 (28) oral tablet 0.15-30 mg-mcg	Tier 2	RM
medroxyprogesterone acetate intramuscular suspension 150 mg/ml	Tier 2	RO
medroxyprogesterone acetate oral tablet 10 mg, 2.5 mg, 5 mg	Tier 1	RM
megestrol acetate oral suspension 40 mg/ml	Tier 2	RO; DL
megestrol acetate oral tablet 20 mg, 40 mg	Tier 2	RM
MENEST ORAL TABLET 0.3 MG, 0.625 MG, 1.25 MG	Tier 4	PA; RM
necon 0.5/35 (28) oral tablet 0.5-35 mg-mcg	Tier 2	RM

COST & COVERAGE



Prelarin


Prelarin (conjugated estrogens) is used to treat [hot flashes](#) and prevent [osteoporosis](#), low hormone levels or in those who have had their ovaries removed. This drug is slightly less popular than other estrogens. There are currently no generic alternatives to Prelarin.

GoodRx has partnered with InsideRx and Pfizer to reduce the price for this prescription. Check our savings tips for co-pay cards, assistance programs, and other ways to reduce your cost. Prelarin is covered by most Medicare and insurance plans.

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- Side Effects
- Images



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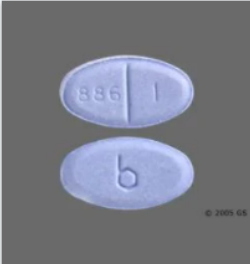
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CVS Pharmacy	\$243 retail Save 21%	\$166.93 with free discount	GET FREE DISCOUNT <small>Exclusive! Restrictions apply</small>
Smith's	\$223 retail Save 25%	\$166.93 with free discount	GET FREE DISCOUNT <small>Exclusive! Restrictions apply</small>
Walgreens	\$254 retail Save 33%	\$166.93 with free discount	GET FREE DISCOUNT <small>Exclusive! Restrictions apply</small>

COST & COVERAGE



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Estrace Estradiol

Estradiol (Estrace, [Vivelle-Dot](#), [Climara](#)) is a moderately priced drug used to treat [hot flashes](#) and [osteoporosis](#). It is also used to treat women with low estrogen levels or those who have had their ovaries removed. This drug is more popular than comparable drugs. It is available in multiple generic and brand versions. It is covered by some Medicare and insurance plans, but manufacturer and pharmacy coupons can help offset the cost. The lowest GoodRx price for the most common version of generic Estrace is around \$6.00, 82% off the average retail price of \$33.49.

Prescription Settings

generic

tablet

1mg

90 tablets

SHARE

Prices

Medicare

Drug Info

Side Effects

Images

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Prices as low as \$7.20


Set your location for drug prices near you

👍 Save up to \$6.02 (48%) off the average insurance copay of \$12.49 for this drug. [How?](#)

Target (CVS) 🇺🇸	<div>\$27 retail Save 55%</div>	<div>\$12.29 with free coupon</div>	GET FREE COUPON
CVS Pharmacy 🇺🇸	<div>\$35 retail Save 65%</div>	<div>\$12.29 with free coupon</div>	GET FREE COUPON
Smith's		<div>\$13.24 with free coupon</div>	GET FREE COUPON
City Market		<div>\$13.47 with free discount</div>	GET FREE DISCOUNT



COST & COVERAGE



Climara Pro

ESTRADIOL; LEVONORGESTREL is used as hormone replacement in menopausal women who still have their uterus. This medicine is used to relieve the symptoms of [menopause](#). It also helps to prevent [osteoporosis](#) in postmenopausal women. The lowest GoodRx price for the most common version of Climara Pro is around \$227.23, 28% off the average retail price of \$319.38. Compare [estrogen / progestin combinations](#).


Prescription Settings

brand
package
4 patches of 0.045mg/0.015mg
1 package
SHARE

Insurance Coverage: Many major insurance plans no longer cover Climara Pro as of 2019. [Learn More](#)

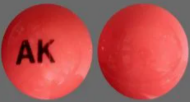
Prices

Medicare
Drug Info
Side Effects
Images



Free Coupons	Savings Clubs	Mail Order
Prices as low as \$227.23	Prices as low as \$228.04	Prices as low as \$235.17
<div> Set your location for drug prices near you </div>		
<div>Intermountain Healthcare Pharmacy</div> <div> <div>\$324 retail</div> <div>Save 29%</div> </div> <div>\$227.23 with free coupon</div> <div>GET FREE COUPON</div>		
<div>Costco</div> <div> <div>\$255 retail</div> <div>Save 10%</div> </div> <div>\$227.23 with free coupon</div> <div>GET FREE COUPON</div>		
<div>Smith's</div> <div> <div>\$324 retail</div> <div>Save 26%</div> </div> <div>\$234.79 with free coupon</div> <div>GET FREE COUPON</div>		
<div>City Market</div> <div> <div>\$324 retail</div> <div>Save 26%</div> </div> <div>\$234.79 with free coupon</div> <div>GET FREE COUPON</div>		

COST & COVERAGE



Prescription Settings

generic

capsule

100mg

90 capsules

SHARE

ProgestosteroneGeneric Prometrium

Progestosterone ([Prometrium](#)) is an inexpensive drug used to treat missed menstrual periods or abnormal [bleeding](#) caused by a hormone imbalance. it is more popular than comparable drugs. it is available in generic and brand versions. Generic progestosterone is covered by most Medicare and insurance plans, but some pharmacy coupons or cash prices may be lower. The lowest GoodRx price for the most common version of progestosterone is around \$19.60, 86% off the average retail price of \$150.57.

Looking for progestosterone in oil? Select "vial" as your form to see prices for injectable progestosterone.

Limited Coverage: Most insurance plans will not cover progestosterone for fertility treatments.



Prices

Medicare

Drug Info

Side Effects

Images



Free Coupons

Prices as low as \$19.60

Savings Clubs

Prices as low as \$33.20

Mail Order

Prices as low as \$80.10

Set your location for drug prices near you

Costco	<div><div>\$63 retail</div><div>Save 68%</div></div>	<div><div>\$19.60</div><div>with free coupon</div></div>	<div>GET FREE COUPON</div>
Albertsons (Sav-on)	<div><div>\$164 retail</div><div>Save 79%</div></div>	<div><div>\$33.00</div><div>with free coupon</div></div>	<div>GET FREE COUPON</div>
City Market	<div><div>\$186 retail</div><div>Save 80%</div></div>	<div><div>\$35.78</div><div>with free coupon</div></div>	<div>GET FREE COUPON</div>
Smith's	<div><div>\$186 retail</div><div>Save 80%</div></div>	<div><div>\$35.78</div><div>with free coupon</div></div>	<div>GET FREE COUPON</div>
Intermountain Healthcare Pharmacy	<div><div>\$204 retail</div><div>Save 80%</div></div>	<div><div>\$38.73</div><div>with free coupon</div></div>	<div>GET FREE COUPON</div>
Walmart	<div><div>\$139 retail</div><div>Save 65%</div></div>	<div><div>\$47.78</div><div>with free discount</div></div>	<div>GET FREE DISCOUNT</div>
Walmart Neighborhood Market		<div><div>\$47.78</div><div>with free discount</div></div>	<div>GET FREE DISCOUNT</div>
CVS Pharmacy	<div><div>\$132 retail</div><div>Save 60%</div></div>	<div><div>\$52.30</div><div></div></div>	<div>GET FREE COUPON</div>

COST & COVERAGE

Inamterene/Hctz 75/50 Mg	Tablet	30	90
Verapamil 80/120 Mg	Tablet	30	90
Warfarin 1/2/2.5/3/4/5*/6/7.5/10 Mg	Tablet*	30	90

Cholesterol

Lovastatin 10/20 Mg	Tablet*	30	90
Pravastatin 10/20/40* Mg	Tablet*	30	90

Diabetes

Chlorpropamide 100 Mg	Tablet*	30	90
Glimepiride 1/2/4 Mg	Tablet	30	90
Glipizide 5 Mg	Tablet	30	90
Glipizide 10 Mg	Tablet*	60	180
Glyburide 2.5/5 Mg	Tablet	30	90
Glyburide Micro 3/6 Mg	Tablet	30	90
Metformin 500/850/1000* Mg	Tablet*	60	180
Metformin Er 500 Mg	Tablet*	60	180

Hormones

Estradiol 0.5/1/2 Mg	Tablet	30	90
Estropipate 0.75/1.5* Mg	Tablet*	30	90
Medroxyprogesterone 2.5/5 Mg	Tablet	30	90
Medroxyprogesterone 10 Mg	Tablet	10	30

Incontinence

Oxybutynin 5 Mg	Tablet	60	180
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Muscle Relaxants

Baclofen 10 Mg	Tablet	30	90
Cyclobenzaprine 5/10 Mg	Tablet	30	90

Other

Allopurinol 100/300 Mg	Tablet	30	90
Carbamazepine 200 Mg	Tablet*	60	180
Chlorhexidine Gluconate 0.12%	Solution	473 mL	1419 mL
Cytra-2	Solution	180 mL	540 mL

https://tgtfiles.target.com/pharmacy/WCMP02-032536_RxGenericsList_NM7.pdf Accessed: 11/5/2020

DURATION



≤ 5 years

< 60 years old



Martin, Kathryn. 2020. UptoDate. Available from <https://www-uptodate-com.ezproxy.lib.utah.edu/www.iced-inspirations.co.uk/anniversary-house-number-candle-gold-glitter-60-37912-p.asp>

Numbersalive.org

Martin Ka, Mason JE. J clin Endocrinol Metab 2008; 93:4567

DISCONTINUATION



<https://www.nationalelfservice.net/populations-and-settings>

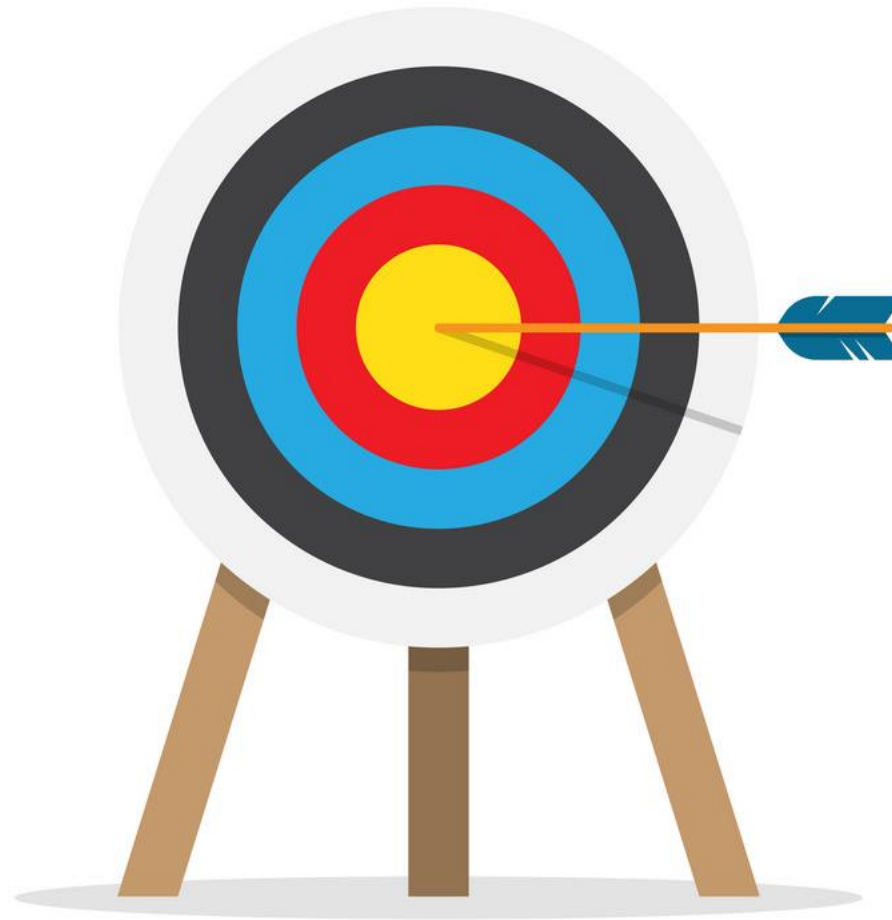
DISCONTINUATION



Martin, Kathryn. 2020. UptoDate. Available from <https://www-uptodate-com.ezproxy.lib.utah.edu/>
<https://www.vapemate.co.uk/blog/cold-turkey-vs-the-slow-taper-which-is-best/>

Cynthia A. Stuenkel, The Journal of Clinical Endocrinology & Metabolism, Volume 100, Issue 11, 1 November 2015, Pages 3975–401

DISCONTINUATION



Martin, Kathryn. 2020. UptoDate. Available from <https://www-uptodate-com.ezproxy.lib.utah.edu/>

Cynthia A. Stuenkel, The Journal of Clinical Endocrinology & Metabolism, Volume 100, Issue 11, 1 November 2015, Pages 3975–401

SUMMARY

- MHT is term to describe unopposed estrogen and combined estrogen-progestin therapy.
- Primary goal is to relieve vasomotor symptoms = hot flashes
- Duration: 3 – 5 years
- All types and routes of estrogen are equally effective to treat hot flashes.
- Prefer 17-beta estradiol over CEE

SUMMARY

- Transdermal route recommended for women with hypertriglyceridemia, active GB disease or h/o factor V Leiden.
- UTERUS → Progestin
- Stop therapy → hot flashes → nonhormonal op → extension

