SECTION 2.18
MENOPAUSE AND RELATED CONDITIONS

I. Definitions

A. Perimenopause - the interval of approximately 5-10 years that precedes and follows the last menses. It is characterized by fluctuating ovarian estrogen production secondary to decreased ovarian function. This transition may be relatively asymptomatic or can be associated with a wide variety of symptoms.

B. Menopause - the cessation of ovarian ovulatory function evidenced by the cessation of menses for a period of one year. Menopause may also be induced surgically (oophorectomy) or medically (chemotherapy or radiation treatment). The average age of menopause in the United States is 51. Smokers reach menopause 1.5 years earlier than non-smokers.

C. Premature menopause/ovarian failure - Ovarian failure prior to age 40 resulting in cessation of menses and associated signs and symptoms of menopause.

II. Perimenopausal / Menopausal Signs and Symptoms

The signs and symptoms associated with the perimenopausal period are primarily due to estrogen deficiency (and/or wide swings in estrogen levels) and can include:

A. Hot flashes or flushes

B. Insomnia / night sweats / poor quality sleep leading to fatigue

C. Mood changes

D. Memory loss / difficulty concentrating

E. Irregular menses, vaginal bleeding / spotting

F. Anxiety / depression

G. Vaginal/vulvar itching, pain or dryness, atrophic vaginitis (usually a late sign)

H. Urinary symptoms such as frequency, urgency, urge incontinence, nocturia

I. Dyspareunia, decreased libido

J. Loss of bone density/osteoporosis

III. Assessment/Examination

Services and supplies for menopausal women are not required by Title X and do not have to be offered. The sliding fee scale does not have to be applied.

A. Comprehensive History - obtain a complete personal and family history including medical/surgical, family history of osteoporosis or hip fracture, personal history of hip fracture, Ob/Gyn history including menstrual, sexual, and contraceptive history, psychosocial history including lifestyle issues relative to nutrition, substance use, domestic violence, and **vaccination history**.

B. Physical Exam - complete

C. Laboratory / Screening Tests

1. Pap **test according to ACOG guidelines**, as indicated with consideration for HRHPV testing depending on history

2. Fasting lipid screen (total cholesterol, HDL, LDL, triglycerides) **- every 5 years beginning at age 45. (US Preventative Services Task Force 2008.) The Task Force concluded that the optimal interval for screening is uncertain; reasonable options include every five years, or shorter for people who have lipid levels that are close to warranting therapy, or longer for low risk people with repeatedly low or normal values. An age to stop screening was not established; screening may be appropriate in older people who have never been screened, but repeated screening is less important in older people because lipid levels are less likely to increase after age 65. (From Up-to-Date.com)**
3. Pregnancy test, if indicated
4. Baseline mammogram or negative mammogram result is recommended prior to initiation of hormone replacement therapy (HRT). HRT may be started and a mammogram ordered within 3 months.
5. Hemoccult fecal occult blood testing annually **or sigmoidoscopy every 5 yrs or colonoscopy every 10 yrs** after age 50 or younger if risk factors are present.
6. Fasting blood sugar (FBS) should be considered in all clients ≥ age 45. If normal, repeat every 3 years.
7. Bone mineral density (BMD) **at age 65 or earlier if indicated by FRAX score assessment of** risk factors.

D. **Special circumstances lab testing:**

1. **Serum follicle stimulating hormone (FSH) –This test is only helpful when evaluating for premature ovarian failure (<40 years old). In the menstrual cycle, an elevated FSH implies that the ovary is unable to produce sufficient estradiol (secondary to depletion of ovarian follicles) to provide negative feedback to the anterior pituitary where FSH is released. This is an expensive test, and only reflects the "snapshot in time" when the test is drawn. Symptom resolution following estrogen treatment is a reliable predictor of perimenopausal status. Treatment, if indicated, can be started without drawing an FSH unless the client is <40 years old. If an FSH is drawn, it should be drawn on Day 3 of the menstrual cycle.**
2. Endometrial biopsy or ultrasound assessment of the endometrial thickness as indicated for irregular bleeding.

IV. Diagnosis

The diagnosis is usually made presumptively on the basis of amenorrhea (at least 12 months) and/or presence of menopausal symptoms in a woman at least 40 years of age.

V. Treatment Alternatives

In July 2002, the Women's Health Initiative announced that it was ceasing the estrogen/progestin arm of the trial (women with an intact uterus) because researchers found that patients who were assigned to the treatment arm of the trial demonstrated risks which outweighed its benefits. While the estrogen and progesterone therapy (EPT) users in

the study did have a reduced risk of colorectal cancer and fractures (including hip fractures), they also experienced more strokes, heart attacks, blood clots, and an increased risk of invasive breast cancer. The estrogen alone treatment (ET) arm was stopped in March 2004. This arm of the study also showed an increase in the rate of strokes and deep vein thrombosis, no increase in the rate of breast or colo-rectal cancer, and a reduction in the risk of hip and other fractures. **Subsequent analyses of the data reveal the possibility of a therapeutic "vulnerable window" corresponding to women presenting closest to their last menstrual cycle at a highly symptomatic time. Cardiovascular risks are decreased in the age group who initiate ET or EPT before age 60**.

Use of ET/EPT should not be recommended for long-term treatment to prevent cardiovascular disease. Benefits may outweigh the risks for short-term relief of vasomotor symptoms. **This is a quality of life decision and current recommendations are that a woman should take the lowest dose necessary to relieve the symptoms.**

A. Hormone Replacement Therapy (HRT)/Estrogen therapy(ET)/Estrogen Progestin Therapy(EPT)

1. **Contraindications**

   a. Known or suspected pregnancy

   b. Unexplained and/or undiagnosed vaginal bleeding

   c. Active/recent thrombophlebitis or history of estrogen-related thromboembolic disease.

   d. Active liver disease, liver dysfunction

   e. Women with a history of malignant melanoma must have a consultation with an oncologist/dermatologist prior to receiving HRT

   f. History of breast or reproductive cancers

   Note: ET/EPT is not contraindicated in women with hypertension, fibroids, diabetes, migraines, and/or varicosities.

2. Side Effects

   a. Gastrointestinal – nausea/vomiting (GI - N/V), bloating, abdominal cramping

   b. Breast tenderness, enlargement

   c. Vaginal bleeding/spotting

   d. Weight gain/changes, **fluid retention**

   e. **Chloasma**

   f. **Headache**

   g. **Mood changes**

   h. **Gallstones, cholecystitis**

3. Risks

   a. Slight increase in the rate of breast cancer in women using **combination** HRT **(EPT)** continuously for 5 years or more. Investigations into this association continue.

b. **In women over 60**, slight increase in rate of cardiovascular incidents within the first 5 years of use.

c. Increased risk of endometrial cancer if estrogen is taken alone in the presence of an intact uterus. The addition of progestin decreases this risk.

4. Benefits – **ET/EPT** provides protection against bone loss and osteoporosis and relieves vaginal and urogenital symptoms

5. Recommended Regimens

The following **ET/EPT** regimens are recommended for clients with an intact uterus:

Clinicians may want to consider an increased emphasis on prescribing regimens formulated with progestins other than medroxyprogesterone acetate, such as norethindrone acetate or norgestimate **or progesterone itself (Prometrium)**

a. Continuous Combined Regimen

Estrogen and progestin/progesterone daily.

(1) Withdrawal bleeding and spotting may occur for the first 6-12 months. However, most women on continuous HRT experience amenorrhea within 6 months - 1 year.

(2) **Any woman with irregular uterine bleeding** who has risk factors for hyperplasia (diabetic, hypertensive, history of taking unopposed estrogen) or any woman with bleeding that persists for 12 months, should receive an ultrasound evaluation of endometrial thickness or an endometrial biopsy. If the endometrial stripe is **greater than 4**mm on ultrasound, an endometrial biopsy is indicated.

(3) Although off label for this use, the levonorgestrel containing intrauterine system is an excellent means of delivering progestin to the endometrium and protecting the patient from hyperplasia. Side effects of oral progestins are avoided with this treatment modality.

b. Cyclic Regimen

Daily estrogen **plus** progestin/progesterone for the first 14 days of every month.

(1) withdrawal bleeding can be expected during or after the completion of the progestin cycle, although some women experience very light or no bleeding.

(2) many clinicians start perimenopausal/newly menopausal women on a cyclic regimen, switching later to the continuous combined regimen.

c. Estrogen only, with *intact* uterus requires yearly endometrial biopsy or ultrasound evaluation of endometrial thickness **and is quite likely over time to lead to endometrial hyperplasia. (which will necessitate progestin therapy or even hysterectomy)**

Equivalent Doses of Estrogens

Brand Name	***Dosage***
Premarin,**Cenestin, Enjuvia, Menest**	**0.3 - 0.**625 mg
Estrace, Estradiol (**generic**)	**0.5 -**1.0 mg
Estratab	0.625 mg
Ogen	0.625 mg
Vivelle, **Vivelle Dot, Climara, Alora,** Estraderm, **or generic estradiol** Patch	**0.025 - 0.05** mg

Combination pills (e.g. PremPro, Activella, Angeliq and patches (Climara Pro, Combipatch) are also available

6. Other Regimens

   a. Post-hysterectomy/oophorectomy - Estrogen daily. Women with prior endometriosis with remaining endometriotic implants should consider adding progestin/progesterone.

   b. Women unable to tolerate estrogen because of side effects or impaired liver function – Transdermal delivery, may be preferred **with progestin** as indicated (if uterus in situ). **Transdermal delivery of estrogen also appears to be safer, i.e. associated with less risk of DVT, PE, and stroke.**

   c. Women experiencing urogenital symptoms only –Estring® one ring every 90 days/**Estradiol or Premarin** vaginal cream intravaginally 1**/4** applicatorful **qd x 1-2 weeks then twice a week** as indicated, or Vagifem® vaginal tablets 1 tablet intravaginally qd X 2 weeks followed by maintenance of 1 tablet intravaginally twice a week. **All bleeding should be investigated with endometrial biopsy or ultrasound of the endometrial stripe.**

7. Follow Up

   a. The first follow up visit should be scheduled in 3 months to include:

      (1) Assessment of symptom relief

      (2) Evaluation of side effects - reassurance about bleeding, unless it has persisted for 12 months or more.

   b. Annual examinations

B. Low dose oral contraceptives are effective in controlling perimenopausal symptoms and re-establishing cycle control in women with fluctuating levels of estrogen. **They are indicated only in non-obese nonsmokers without cardiovascular risk factors**

C. Non-hormonal Options

1. Herbal - herbal remedies are not regulated by the FDA, so safety and efficacy information is not readily available.
2. Artificial lubrication for control of vaginal symptoms and dryness.

VI. Counseling and Education

A. Discuss the normalcy of menopause, normal changes in body systems and sexuality associated with aging.

B. Discuss the importance of good nutrition and adequate calcium intake (1500 mg qd if not on ET/EPT; 1200mg if on ET/EPT) **and vitamin D at least 600 IU/day**. Calcium carbonate and calcium citrate are better absorbed than some other calcium formulations.

C. Encourage regular exercise - weight-bearing exercise enhances bone density.

D. Promote a healthy lifestyle

1. Decrease caffeine and alcohol consumption.
2. Stop smoking.

E. Counsel regarding the need for preventive health screening, such as Pap test screening according to **American College of Obstetricians and Gynecologists (ACOG)** guidelines, SBE, annual clinical breast exam, mammography, bone mineral density, and colonoscopy.

F. Discuss importance of recommended immunizations, such as tetanus-diphtheria booster every 10 years, influenza immunization yearly, and pneumovax at age 65.

G. Counsel regarding contraception if client has not experienced cessation of menses for 1 year. Serum levels achieved with ET/EPT do not suppress ovulation and are **NOT** adequate for contraception. **(Hormone levels in HRT are 1/6 the levels of a pill containing 20 mcg of estrogen.) If a patient is using depot medroxyprogesterone acetate, she may initiate estrogen supplementation with DMPA as the progestin. Combined oral contraception (COC) may be continued to the early 50's,unless contraindications as noted above. For the woman using COC cyclically, she may experience hot flushes and difficulty sleeping at the end of the week of placebo pills as an indicator of loss of ovulatory potential and lack of estrogen. She may continue to use COC continuously which will help control these symptoms or she may transition to EPT if she uses a back up method of contraception.**

H. Discuss issues pertinent to STI & HIV prevention as indicated.

I. Discuss treatment options for menopausal symptoms, refer to community and other supportive resources.

1. Client risk factors for osteoporosis, cardiovascular disease, breast cancer and other family history
2. Risks and benefits of HRT and alternative treatments
3. Client expectations/attitudes about menopause and treatment including HRT
4. **Menopause.org is an excellent internet site maintained by the North American Menopause Society and provides information for the patient and the provider.**