### Nursing Process Focus:
Patients Receiving Conjugated Estrogens (Premarin) and Conjugated Estrogens with Medroxyprogesterone (Prempro)

#### Assessment
Prior to administration:
- Obtain complete health history including allergies, drug history and possible drug interaction.
- Assess for presence/history of breast cancer, estrogen dependent cancer, abnormal genital bleeding, thromboembolic disorders, cardiovascular disorders, smoking history, pregnancy.

#### Potential Nursing Diagnoses
- Disturbed Body Image, related to side effects of drug
- Excess Fluid Volume, related to edema secondary to drug
- Noncompliance, related to unpleasant side effects, desire for pregnancy, lack of knowledge or understanding of proper self-administration
- Ineffective Tissue Perfusion (cardiopulmonary), related to development of thrombophlebitis, pulmonary embolism, or cerebral, R/T incidence of CVA secondary to drug

#### Planning: Patient Goals and Expected Outcomes
Patient will:
- Demonstrate understanding of correct self-administration and potential side effects.
- Demonstrate positive body image and self-concept.
- Remain compliant with drug regimen.
- Remain free of symptoms of thrombophlebitis or other clot development.

#### Implementation

<table>
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<tr>
<th>Interventions and (Rationales)</th>
<th>Patient Teaching/Discharge Planning</th>
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<tbody>
<tr>
<td>*Obtain history of cancer in patient or close relative. (Estrogen-dependent cancer combination of medication and estrogen-dependent tumors, either currently or history of, put patient at much higher risk for developing cancer.)</td>
<td>*Advise patient of importance of complete physical exam prior to beginning therapy with conjugated estrogen.</td>
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<td>*Monitor for signs of pregnancy. (Can cause serious fetal harm.)</td>
<td>Instruct patient:</td>
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<tr>
<td>*Monitor for current or past history of thromboembolism. (Estrogen use increases chance of thromboembolism occurring.)</td>
<td>*Advise patient of importance of complete disclosure of past medical history.</td>
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<tr>
<td>*Monitor for undiagnosed abnormal uterine bleeding. (Can increase bleeding, tumor size, if undiagnosed tumor present.)</td>
<td>*Instruct patient to have complete physical exam prior to beginning therapy.</td>
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<tr>
<td>*Monitor for cardiovascular/cerebrovascular disorders. (Must be used with caution in patients with CAD, hypertension, and cerebrovascular disease. Any of these conditions predispose woman to thromboembolic disorders. Cardiovascular side</td>
<td>Teach patient:</td>
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- *Obtain history of cancer in patient or close relative. (Estrogen-dependent cancer combination of medication and estrogen-dependent tumors, either currently or history of, put patient at much higher risk for developing cancer.)

- *Monitor for signs of pregnancy. (Can cause serious fetal harm.)

- *Monitor for current or past history of thromboembolism. (Estrogen use increases chance of thromboembolism occurring.)

- *Monitor for undiagnosed abnormal uterine bleeding. (Can increase bleeding, tumor size, if undiagnosed tumor present.)

- *Monitor for cardiovascular/cerebrovascular disorders. (Must be used with caution in patients with CAD, hypertension, and cerebrovascular disease. Any of these conditions predispose woman to thromboembolic disorders. Cardiovascular side
| Effects are the most serious side effects, and include MI, pulmonary embolism, hypertension, CVA.) | Symptoms of MI: fatigue, dyspnea, nausea, light-headedness, palpitations, “racing” heart.  
- to report to health care provider immediately if any of these sensations occur. |
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<td>*Evaluate breast health. (Use with caution in patient with fibrocystic breast disease, breast nodules, or abnormal mammograms. Can cause worsening of condition. If cancer develops, it is essential to have baseline information with which to make comparisons.)</td>
<td>*Advise patient of importance of complete physical exam prior to treatment and periodically during treatment.</td>
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</table>
| *Monitor for vision changes. (Medication may cause worsened myopia or astigmatism, intolerance of contact lenses.) | Instruct patient:  
- to have complete eye exam prior to beginning treatment and periodically during treatment.  
- to report if decreased vision occurs, or if intolerance to contact lenses occurs. |
| *Obtain smoking history. (Smoking increases risk of cardiovascular disease, especially when in combination with estrogens.) | Instruct patient:  
- to quit smoking.  
- to attend smoking cessation programs. |
| *Monitor for diabetes mellitus. (Estrogens may alter blood glucose levels.) | *Advise diabetic patient to monitor blood glucose frequently and report if any consistent changes. |
| *Monitor for seizure disorder. (Estrogen-induced fluid retention may increase incidence of seizures.) | Teach patient:  
- to disclose information if seizure disorder present.  
- to consult health care provider of anti-seizure medication prior to beginning estrogen therapy.  
- to be extra alert for possibility of seizures occurring. |
| *Observe for side effects. Side effects are dose dependent, and include: weight gain, edema, nausea/vomiting, abdominal cramps and bloating, acute pancreatitis, appetite changes, skin eruptions, mental depression, decreased libido, headache, fatigue, nervousness. | *Advise patient of common side effects and to be alert to occurrence of them. |
| *Monitor for GU changes. (Can be caused by estrogens: breakthrough bleeding, spotting, changes in amount and/or duration of menstrual flow, amenorrhea during and after use, candida vaginitis.) | *Advise male patient that he may develop feminine characteristics or become impotent; teach him these will resolve when treatment completed.  
*Advise female patient to report any of symptoms listed. |
| *Evaluate patient’s understanding and proper self-administration. | Instruct patient:  
- regarding dose, form and frequency of medication.  
- to take with food to decrease GI irritation.  
- to take daily dose at HS to decrease occurrence of side effects.  
- that if cyclic therapy ordered, to take |
| medication for 3 weeks and then omit for 1 week.  
| to document menstruation and any problems that occur.  
| to report immediately if pregnancy is suspected.  
| to take lowest effective dose for shortest time period, to decrease chances of side effects developing.  
| of risks associated with supplemental estrogens.  |

**Evaluation of Outcome Criteria**  
Evaluate the effectiveness of drug therapy by confirming that patient goals and expected outcomes have been met (see “Planning”).