

ACTIVE LEARNING TEMPLATE: *Medication*

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MEDICATION Estrogen REVIEW MODULE CHAPTER _____

CATEGORY CLASS Hormone

PURPOSE OF MEDICATION

Expected Pharmacological Action

Responsible for development and maintenance of female reproductive system and secondary sexual characteristics; modulates release of gonadotropin-releasing hormone, reduces follicle-stimulating hormone (FSH), luteinizing hormone (LH).

Therapeutic Use

Reduces elevated levels of gonadotropins, LH, and FSH.

Complications

Frequent: Vaginal bleeding (spotting, breakthrough bleeding), breast pain/tenderness, gynecomastia.

Medication Administration

Menopause: PO 0.3–1.25 mg/d for 21 d
Female Hypogonadism, Primary Ovarian Failure, Female Castration: PO 2.5–7.5 mg/d in 1–3 divided doses for 20 d followed by a 10-d rest period, during last 5 d of estrogen, give a PO progestin
Breast Cancer: PO 10 mg t.i.d. for 2–3 mo
Prostatic Cancer (palliation): PO 1.25–2.5 mg t.i.d. for several weeks
Prevention of Osteoporosis: PO 0.3 mg q.d.

Contraindications/Precautions

Contraindications: Hypersensitivity, Breast cancer, hepatic disease, hx of or current thrombophlebitis, undiagnosed abnormal vaginal bleeding, pregnancy, DVT or PE hx of angioedema or anaphylactic reaction to estrogens, estrogen-dependent tumors. Cautions: Asthma, epilepsy, migraine headaches, diabetes, cardiac/renal dysfunction, history of severe hypocalcemia, lupus erythematosus, porphyria, endometriosis, gallbladder disease, familial defects of lipoprotein metabolism. Hypoparathyroidism, history of cholestatic jaundice.

Nursing Interventions

Assess B/P periodically. Assess for edema; weigh daily. Monitor for loss of vision, diplopia, migraine, thromboembolic disorder, sudden onset of proptosis.

Interactions

DRUG: May decrease therapeutic effect of anticoagulants (e.g., warfarin), anastrozole, exemestane. HERBAL: Herbals with estrogenic properties (e.g., fennel, red clover, ginseng) may increase adverse effects. FOOD: None significant. LAB VALUES: May increase serum glucose, HDL, calcium, triglycerides. May decrease serum cholesterol, LDH. May affect serum metapyrone testing, thyroid function tests.

Client Education

Assess B/P periodically. Assess for edema; weigh daily. Monitor for loss of vision, diplopia, migraine, thromboembolic disorder, sudden onset of proptosis.

Evaluation of Medication Effectiveness

Decrease in LH, FSH and gonadotropins