Chapter 47 Menopause and Andropause

**Estrogens**
In addition to contraception, estrogen is most commonly used in HRT (hormone replacement therapy) in post menopausal women. Changes to aging tissues can be lessened.

**Uses**
Relief of sweating and flushing (vasomotor)
TX of atrophic vaginitis
Osteoporosis in menopausal women
Palliative tx in advanced prostate cancer for men
Selected cases of breast cancer

**Adverse reactions**
Mental depression, melasma, cholesama, breakthrough and withdrawal bleeding, dysmenorrhea PMS, amenorrhea, yeast infections, cervical erosions, vaginitis, pain at injection site or abscess, steepening of corneal curvature, intolerance to contacts
Edema, changes in libido, breast pain, enlargement and tenderness, carbohydrate intolerance, [venous thromboembolism, pulmonary embolism](https://en.wikipedia.org/wiki/Venous_thromboembolism), weight gain or loss, skeletal pain
Increased risk of endometrial cancer, gallbladder disease, hepatic adenoma, cardiovascular disease, hypercalcemia in those with breast cancer

**Contraindications**
Breast cancer, estrogen dependant neoplasms, undiagnosed abnormal genital bleeding, thrombolytic disorders, progestin are contraindicated in cerebral hemorrhage or impaired liver fx and are pregnancy catagory X

**Interactions**
**Oral anticoagulants**: decreased anticoagulant effect
**Tricyclics antidepressants**: increased effect of antidepressants
**Rifampin**: breakthrough bleeding
**Hydantoin**: breakthrough bleeding and pregnancy
Female Hormones: Estrogens

**Estrogens conjugated**: premarin (IM, ORAL)
**Uses**: oral: hypogonadism, primary ovarian failure, (parenteral) abnormal uterine bleeding from hormonal imbalance
**Adverse reactions**: venous thromboembolism, weight changes, risk for endometrial cancer

**Estrogen esterfied**: menest
**Uses**: Same
**Adverse reactions**: same

**Estrogen topical**: estrogel
**Uses**: same
**Adverse reactions**: same

**Estrogens vaginal**: fearing, estring, estrade
**Uses**: same
**Adverse reactions**: same

**Estradiol oral**: femtrace
**Uses**: same
**Adverse reactions**: same

**Synthetic conjugated**: enjuvia
**Uses**: same
**Adverse reactions**: same

**Misc. estrogens**

**Raloxifene**:
**Uses**: osteoporosis prevention and tx
**Adverse reactions**: hot flashes, flue like symptoms, arthralgia, rhinitis, increased cough
Antispasmodic
Cholinergic blocking drugs, delay the urge to void, relieve symptoms of dysuria

Adverse reactions
Cant see, cant pee, cant spit, cant shit, vertigo, mental confusion, pee can be dark brown or orange

Contraindications
Glaucma, intestinal or gastric blockage, myasthenia gravis, or urinary tract blockage,
Use with caution in those with BPH, or GI infections, urinary retention, hyperthyroidism

Interactions
Antibiotics/antifungal: decreased effectiveness of antifungal
Merpidine/flureazapam/phenothiazines: increased antispasmodic effect
Tricyclics antidepressants: increase antispasmodic
Digoxin; increase serum dig levels

Antispasmodic drugs
Oxybutin: ditropan
Uses: overactive bladder, neurogenic bladder
Adverse reactions: urinary retention

Solifenacin: vesicare
Uses: overactive bladder
Adverse reaction: cholinergic effects

Tolterodine; Detrol/detrol LA (long acting
Uses: overactive bladder
Adverse reaction: same

Andropause
Male climacteric. Occurs primarily in the testes (aging). Testosterone remains constant. Men often notice prostate enlargement. (59% BPH)
MOA/USES
Alpha adrenergic blockers block the transmission of NOREPINEPHRINE. BPH drugs are peripherally acting and exert their action on the smooth muscle of the prostate and are uroselective (do not mess with the vascular system).

Adverse reactions
Erectile dysfunction, weight gain, transient orthostatic hypotension, decreased ejaculation volume, decreased libido. Changes in breast tissue, enlargement or nipple drainage can occur.

Interactions
Antibiotic/antifungals: decrease effects of anti infective
B blockers: increased hypotension
Phosphodieterase 5 inhibitors; Increased hypotension

BPH DRUGS Androgen hormone inhibitors
Dutasteride: avodart
Uses: BPH
Adverse Reactions: impotence decreased libido

Finasteride: propecia
Uses: male pattern baldness
Adverse reactions: postural hypotension, decreased libido, asthenia, impotence

BPH DRUGS ANTIADRENERGIC PERIPHERALLY ACTING
Doxazosin: cardura
Uses: HTN, BPH
Adverse reactions: headache, dizziness, fatigue

Tamsulosin: flomax
Uses: BPH
Adverse reactions: ejaculatory dysfunction, rhinitis

Terszosin: Hytrin
Uses: BPH
Adverse reactions: postural hypotension, dyspnea, nasal congestion

Impotence agents
Phosphodiesterase 5 inhibitors are oral drugs that facilitate the enzyme that allows blood to flow into the penis resulting in an erection.
ADVERSE REACTIONS
Headache, flush skin, GI upset, runny nose or congestion. Do not use if you are taking a nitrate talk to your doctor if you have cardiac problems

Interactions
Antiretrovirals: increased effects of ED drug
Antihypertensives: increased effects of antihypertensive

ERECTILE DYSFUNCTION DRUGS
Sildenafil: viagra
Uses: erectile dysfunction
Adverse reactions: see top

Tadalafil: cialis
Uses: ED, BPH
Adverse Reactions: see top
Chapter 48 urinary tract anti infectives

**Urinary tract anti infective**
Used to treat UTI caused by susceptible organisms. Drugs are chosen because of the rapid excretion rate and have a high concentration in the urine and interfere with bacterial multiplication.

**Adverse reactions**
Stomatitis, peripheral neuropathy, photosensitivity, leg cramps, when given in large doses patients may experience burning when urinating. Nitrofurantoin has been known to cause acute an chronic pulmonary reactions

**Contraindications**
Pregnancy, and lactation except nitrofurantoin it is cautioned in pregnancy
Patients allergic to food dye (Tartazine) should not take methanamine and used with caution in patients with gout. Nitrofurantoin is used cautiously in patients with cerebral atherosclerosis, diabetes

**Interactions**
Magnesium triscillate( nitrofurantoin): decrease absorption of anti infective  
Anticholinergic: delay in gastric emptying, increase the absorption of Nitrofurantoin

**Urinary Anti infective Drugs**

*Amoxacillian*: amoxil  
**Uses**: acute bacterial UTI or other bacterial infections  
**Adverse reactions**: gloss it is, stomatitis, hypersensitivity, hematopoietic changes

*Methanamine*: hiprex, urex  
**Uses**: chronic bacterial UTI  
**Adverse reactions**: bladder irritation

*Nitrofurantoin*: furdantin, macrobid, macrodantin  
**Uses**: acute bacterial UTI  
**Adverse Reaction**: peripheral neuropathy, bacterial superinfection

**Antiinfective combos**

*Trimethoprim/sulfamethaxazole*: bactrium/septra  
**Uses**: chronic/ acute UTI and bacterial infections  
**Adverse reactions**: allergic skin reactions, glossitis

**Urinary analgesic**

*Phenazopyridine*: pyridium  
**Uses**: relief of pain associated with UTI/ lower GU tract  
**Adverse reactions**: red orange urine