

Date: April 17, 2008

Subject: DRC Recommendations to DCC and DHS

To: DHS, DCC, Dean's Office

From: Henry F. Simmons, Jr., MD, Ph.D.
Chairman DRC

At its 04/17/08 meeting, the Drug Review Committee considered the potential toxicities and therapeutic roles of selected estrogens for use by perimenopausal women and those with natural or surgical menopause.

Agents under consideration

1. Oral estrogens

17-beta estradiol: (generic estradiol and Estrace)

Estradiol acetate: (Femtrace)

Esterified estrogens: (Menest, Neo-Estrone)

Estropipate: (generic estropipate, Ogen, Ortho-est)

Conjugated equine estrogen (CEE): (Premarin)

Synthetic conjugated estrogen: (Cenestin, Enjuva, C.E.S., Congest, PMS-Conjugated)

2. Oral combination agents

CEE, medroxyprogesterone: (Prempro, Premplus, Premphase)

17-beta estradiol, norgestimate; (Ortho-Prefest)

17-beta estradiol, norethindrone acetate: (Activella)

17-beta estradiol, drospirenone: (Angeliq)

Ethinyl estradiol, norethindrone acetate; (FemHRT)

3. Transdermal estrogens

17-beta estradiol matrix patch: (Alora, Climara, Esclim, Vivelle, Vivelle-Dot, Menostar, Estradot, Oesclim, generic 17-beta estradiol)

17-beta estradiol reservoir patch: (Estraderm)

17-beta estradiol transdermal gel: (EstroGel, Elestrin, Divigel)

4. Transdermal combination agents

17-beta estradiol, norethindrone acetate patch: (Combi-Patch, Estalis, Estalis Sequi, Estracomb)

17-beta estradiol, levonogesterel: patch (Climara Pro)

Estradiol hemihydrate topical emulsion (Estrasorb)

5. Topical Mucosal Products

17-beta estradiol vaginal cream: (Estrace vaginal cream)

CEE cream: (Premarin vaginal cream)

Esterified estrogen cream: (Neo-Estrone vaginal cream)

17-beta estradiol intravaginal ring: (Femring, Estring)
Estradiol hemihydrate vaginal tablet: (Vagifem)

Indications under consideration

Hot flashes/flushes
Sleep disturbance/night sweats
Mood changes
Urogenital symptoms/sexual dysfunction
Quality of life issues
Prevention of osteoporosis and its complications

**Based upon the bulk of the best available evidence pertaining to the
aforementioned agents the Committee concluded the following:**

The agents do not differ in terms of either safety considerations or frequency of adverse events during either short or long term use to the extent that one or more should be excluded from consideration.

The agents do not differ significantly in efficacy when used in equipotent doses.

At least one transdermal preparation, one intra-vaginal preparation, one oral estrogen preparation and one oral estrogen/progestin preparation should be available.

At least one combination product should be available for women with intact uteri.

None of the agents appear to be associated with either special benefits or special risks on the basis of demographics.

Ultra low-dose, transdermal preparations have not been shown superior to placebo.

Henry F. Simmons, Jr.
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