Schizophrenia in Women May be Relieved by Transdermal Estrogen

A small Australian double-blind, placebo-controlled study in women with severe schizophrenia showed that adding a dose of 100 micrograms a day of transdermal estrogen to an antipsychotic medication significantly reduced symptoms. Past studies have suggested that estrogen has a role in the treatment of severe mental illness. Research in animals determined that estradiol affects two key neurotransmitters in schizophrenia (dopamine and serotonin).

Schizophrenia generally has an earlier onset in males, usually between the ages 16 and 19. In females the initial peak occurs at about 25-30 years of age and a secondary peak at about 45-50 years of age. It is suggested that this corresponds to changing levels of estrogen in females at various stages of their lives such as post-partum where a sudden decrease in estradiol levels occurs and in peri-menopause where lower estrogen levels may be present.

In the Australian study, the estradiol group wore a 100 microgram patch delivering estradiol at a constant rate. The patch was replaced every 3 days over a 28 day period. The study group was comprised of 102 women with severe schizophrenia who were taking an antipsychotic medication (both typicals and atypicals). Excluded from the study were women with bipolar disease, mania and women taking any hormonal treatment (e.g. oral contraceptives, thyroid replacement). Pregnant women, menopausal women and women with unstable neurologic disorders were not part of the study group. The group of women taking transdermal estrogen experienced a significant reduction of positive and general pathopsychologic symptoms. A more pronounced improvement occurred in women who had a postpartum onset of schizophrenia.

The authors concluded that “transdermal estradiol may play a role in the adjunctive treatment of severe schizophrenia in women”.

Smoking Improves Antiplatelet Response to Plavix

Smoking at least a half a pack of cigarettes a day appears to be associated with reduced platelet aggregation in patients taking Plavix (clopidogrel). A study of 104 cigarette smokers and 155 nonsmokers reported in the Journal of American College of Cardiology (Aug 12/08) compared platelet inhibition by clopidogrel in the 2 groups. The smokers generally experienced an increased effect from clopidogrel. The results of this study have been supported by other investigations and general observations which reported that “smokers were less often clopidogrel resistant”.

It is thought that “cigarette smoking induces one of the CYP450 enzymes that metabolizes clopidogrel into its active metabolite and there is some evidence that smokers have better cardiovascular outcomes with clopidogrel treatment versus nonsmokers”. Patients in the study who smoked less than half a pack of cigarettes a day experienced no benefit from smoking.

The amount of active clopidogrel available may also be affected by drugs such as Saint John’s wort which upregulates the metabolic pathway of clopidogrel and omeprazole (Losec) which competes for its metabolism on the same site on the P450 enzymes.

The authors conclude that there is likely a difference in response to clopidogrel among individuals, however current smokers on chronic clopidogrel therapy tend to display significantly lower platelet aggregation and increased platelet inhibition compared with nonsmokers. Because clopidogrel is a pro-drug which must be metabolized to its active form, it is vulnerable to interactions with other agents. The answer may be to develop a direct-acting antiplatelet drug.

Influenza Vaccine for 2008-2009

The trivalent vaccine recommended by the World Health Organization is a complete change from last season’s. All the components have changed and are not antigenically related. Protective antibody levels are generally reached 2 weeks following vaccination. Elderly patients may experience a lower initial antibody response to the vaccine but there is no evidence that there is a more rapid antibody decline in the elderly compared with younger individuals.
**Activelle LD tablets**

**estradiol 0.05 mg & norethindrone acetate 0.1 mg** (Novo Nordisk)

(not currently a benefit of ODB)

Activelle LD is a new low dose continuous combined estrogen and progestin hormone product indicated for the treatment of moderate to severe vasomotor symptoms associated with menopause in women with an intact uterus. Activelle LD joins the higher dose continuous combined Activelle (1 mg estradiol and 0.5 mg norethindrone acetate).

**Dosage & Administration:** For initial treatment or when transferring from another continuous combined hormone therapy Activelle LD may be started on any convenient day. When transferring from sequential hormone therapy regimens, treatment with Activelle LD should begin right after withdrawal bleeding has ended. The recommended dose is one tablet orally once daily without interruption (preferably at the same time each day). Re-evaluation of treatment is recommended within 3 to 6 months of initial therapy.

**Availability:** Activelle LD and Activelle are available in dial packs of 28 tablets.

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**Ergodyr 100 mg capsules**

**ergotamine tartrate / caffeine citrate / Diphenhydramine (Erf)***

(not currently a benefit of ODB)

Ergodyr has been re-introduced to the Canadian market for the treatment of migraine headache.

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**New Combinations ...**

**Adalat XL Plus** (nifedipine extended-release & acetylsalicylic acid delayed-release) Bayer

(not currently a benefit of ODB)

Adalat XL Plus is indicated where the administration of Adalat XL 81 mg is appropriate. The dose of the individual components should be established first based on the patient’s response and tolerance. Adalat Plus must be swallowed whole (preferably after meals with plenty of fluids) and should not be chewed, divided or crushed. The acetylsalicylic acid in Adalat XL Plus is enteric coated.

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**Stalevo** (levodopa / carbidopa / entacapone)

**Novartis** (not currently a benefit of ODB)

Stalevo is a new combination tablet for the treatment of Parkinson’s disease. Patients should initially be titrated on the individual immediate-release components of Stalevo prior to initiating treatment with Stalevo. Patients taking levodopa 600 mg a day or less who are not experiencing dyskinesias but are exhibiting the symptoms of end-of-dose wearing off may benefit from the addition of entacapone.

**Dose & Administration:** The dosing of Stalevo should be made according to the Stalevo tablet strength which is closest to the daily levodopa dose the patient is taking and titrated according to response. Adjustments in doses may be made by increasing or decreasing the levodopa dose or extending or decreasing the dosing interval (refer to monograph for complete guidelines). The tablets should be swallowed whole, without regard to meals. If gastrointestinal adverse effects are experienced the tablets may be taken with a small snack. The maximum recommended daily dose is 8 tablets.

**Availability:** Stalevo is available as: levodopa / carbidopa / entacapone 50/ 12.5/ 200 mg, 100/ 25/ 200 mg & 150/ 37.5/ 200 mg.

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**Discontinued ....**

**Cardizem 60 mg** (diltiazem HCl)

**Kenalog in Orabase** (triamcinolone acetonide 0.1%)

**Symmetrel 100 mg capsules** (amantadine)

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**Shaping the future of pharmacist education in geriatrics...** Our Clinical Consultant Pharmacists, Sally Ebsary and Luis Viana have been awarded one-year part-time adjunct professional positions at the new University of Waterloo, School of Pharmacy.