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## Estradiol Valerate/Dienogest A Viewpoint by Margaret Rees

Women's Centre, John Radcliffe Hospital, Oxford, England

Estradiol valerate/dienogest is an oral continuous-combined hormone replacement formulation approved for the treatment of climacteric symptoms. Dienogest is a hybrid progestogen that combines the properties of both progesterone and 19-nortestosterone derivatives, binding to the progesterone receptor and having anti-androgenic activity. Dienogest has a  $17\alpha$ -cyanomethyl group instead of the  $17\alpha$ -ethinyl group typical of the common 19-nortestosterone derivatives.

The combination of dienogest with estradiol valerate alleviates menopausal symptoms such as hot flushes, and results from a large trial showed that it is as effective as a currently used formulation containing estradiol 2mg/estriol 1mg/norethisterone acetate 1mg. The amenorrhoea rate after administration of the formulation containing estradiol valerate 2mg/dienogest 2mg is comparable to that produced by estradiol 2mg/estriol 1mg/norethisterone acetate 1mg; the mean number of bleeding episodes per patient over 12 months was 6.2 and 6.5, respectively. Paradoxically, when the dose of dienogest is raised bleeding is significantly in-

creased. Atrophic material was found in 91% of biopsies after 12 months of treatment with estradiol valerate 2mg/dienogest 2mg. The tolerability of estradiol valerate/dienogest is good.

Compliance is an important issue in hormone replacement therapy, with the benefits being lost when treatment is stopped. In Western Europe, frequency of use varies between 3 and 45%. However, in most Western European countries, the frequency is below 20%, and over 50% women will have stopped therapy after one year.[1] Studies which have examined the reasons as to why women stop therapy emphasise the dislike of continued menstruation, adverse effects, lack of efficacy and concerns about long-term risks. Thus, compliance is greater in those taking a continuous-combined regimen.[2] The availability of a continuous-combined formulation with a novel progestogen will increase the choices available, and the anti-androgenic activity will be attractive to women with hyperandrogenism.

## References

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