

### **A prospective study of antiepileptic drugs in pregnancy in the northern region**

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Development of epilepsy services in the northern region has included a baseline audit of the availability of pre-conceptual advice, AED prescribing, folic acid usage, vitamin K administration and pregnancy outcome in women with epilepsy which we now report. Patients, identified by community midwives, complete a standardized interview questionnaire with a research nurse. Delivery outcome is recorded using obstetric notes. 333 notifications have been received in 18 months, 247 questionnaires and 150 outcome forms completed. Forty-six women requested no contact, 63% receive epilepsy care from their GP, only 35% recalled pre-conceptual advice, and 12% took polytherapy. Of those on monotherapy 50% take carbamazepine, 39% sodium valproate, 9% phenytoin and 1% lamotrigine. Folic acid was taken pre-conceptually by 28% and during pregnancy by 87%. Only 36% took 5 mg folic acid. Vitamin K was given to 72% babies, 38% by intramuscular injection. Adverse outcomes include a baby with phocomelia and a pregnancy terminated for spina bifida in mothers taking valproate. A baby with short ribs was born to a mother on valproate and lamotrigine.

### **Pro-active pre-conception counselling in epilepsy—is it effective?**

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It is our clinic policy to attempt to actively counsel women with epilepsy before they become pregnant and to ensure re-evaluation of the epilepsy, withdrawal or rationalization of medication whenever possible (or substitution of lamotrigine or gabapentin for valproate and phenytoin if withdrawal is not possible). The woman is also encouraged to take folic acid 5 mg daily. The pregnancy outcome of a group of women so counselled has been compared with the pregnancy outcome of a group of women referred to the clinic *already pregnant*. Although the two groups are not completely comparable, pregnancy outcome data suggest that an active pre-conception policy as outlined above may reduce foetal abnormality. We also have indirect evidence that folic acid taken pre-conception may have a protective effect against foetal abnormality. Further research in this area is greatly needed. Our practice of pre-conception counselling will also be described. In a small group of women with epilepsy *conception* counselling may also be needed.

### **Visual field defects in patients on chronic antiepileptic drug treatment**

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Recent case reports have suggested that vigabatrin (VGB) treatment may be linked to the development of visual field defects. Quantification of such a risk requires that other epilepsy patients should be similarly assessed. This study compared visual field tests of patients on AED treatment including long-term high-dose VGB ('VGB Group'), with those of patients never exposed to VGB ('Control Group'). Thirty patients have so far completed the study, 20 in the VGB group, and 10 in the Control Group. The average duration of AED treatment was long (VGB Group: 21.5 years, Control Group: 23.2 years). No patients reported any visual symptoms. Of the VGB Group, 17 (85%) demonstrated visual field defects, while seven (70%) of the Control Group had comparable defects ( $p = 0.33333$  NS). No statistical difference was seen in the mean number of points seen (VGB Group: 91.6/120 SD = 22.6, Control: 92.4/120 SD = 25.6). More data will be available for presentation, but these findings suggest that visual field defects be more common in patients with epilepsy than in unaffected populations. Further assessment is needed to examine the relationship between chronic epilepsy, its treatment, and visual field abnormalities.