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Editor's note—Several pregnancy registries presently are collecting data on pregnancy outcomes in women with epilepsy. Such registries have inherent limitations of selection bias and incomplete information. Data from the registries cannot easily be combined to achieve greater statistical power, since each registry differs from the other in methodology. Nevertheless, in the likely continued absence of randomised prospective trials in this field, the registry information comprises a potentially useful data set. Epilepsia therefore, at the suggestion of Dr. Martha Morrell, has agreed to publish occasional updates on the Epilepsy and Pregnancy Registries, submitted in summary form by the registries. The following material is the first such update.

Antiepileptic Drug Registries

EURAP: An International Registry of Antiepileptic Drugs and Pregnancy

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EURAP is a prospective registry set up originally in Europe and later extended to several other countries in Asia, Oceania, and South America. The primary objective of the EURAP core protocol is to determine the comparative risk of major fetal malformations after intake of antiepileptic drugs (AEDs) during pregnancy. The project builds on networks of physicians enrolling and reporting pregnancies to a central registry in Milan, Italy. Women taking AEDs for any indication at the time of conception are eligible for inclusion. Only pregnancies registered before fetal outcome is known and within week 16 of gestation contribute to the prospective study. Information on drug therapy and a large set of potential risk factors is obtained. Follow-up data are collected prospectively online once each trimester, at birth, and at 1 year after delivery. Fetal outcome is recorded descriptively and classified by a central committee that is unaware of the type of drug exposure.

More than 300 reporting physicians from 37 countries have so far contributed cases to the central registry. The enrollment rate is presently ~150 new cases per month, and by June 2004, >5,000 pregnancies had been included in the central database. About 25% of these are retrospective, and a substantial proportion of the prospective cases have not yet delivered. Hence by the time of the latest interim report in May 2004, in total, 2,238 prospective pregnancies meeting the inclusion criteria were completed. Cases in which the type of treatment was either unclear or changed during the first trimester had been excluded (n = 146). Of the pregnancies, 1,804 (81%) involved women taking a single AED, 367 (16%) were taking two AEDs, whereas 67 (2%) took three AEDs or more. The most frequently used AEDs in monotherapy were carbamazepine (CBZ; n = 657), valproic acid (VPA; n = 460), lamotrigine (LTG; n = 337), and phenobarbital (PB; n = 137).

Among prospective pregnancies, 31 stillbirths, 22 perinatal deaths, and 67 induced and 141 spontaneous abortions were reported. One hundred twenty-six cases had major birth defects, including 13 among those with induced abortions, two among stillbirths, and two in perinatal deaths. This represents a malformation rate of 6%, 5% after monotherapy exposure and 8% in polytherapy. It should be emphasized that this is a preliminary classification of outcome based partly on the follow-up 3 months after birth.

EURAP considers it essential to include an assessment of the impact of possible confounders such as type of epilepsy, seizure frequency, and family history of malformations in any attempt to compare risks

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with different AEDs. A formal comparison of malformation rates between AEDs will therefore be made only when sufficient statistical power has been obtained to allow inclusion of such risk factors in the analysis.

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