

Women's issues^{*}

Ravish Keni¹, Barbara Mostacci²,
Gordana Kiteva-Trenchevska³, Laura Licchetta^{2,4},
Liljana Ignjatova⁵, Sanjeev Thomas⁶, Kimford J. Meador⁷

¹ Department of Neurology, Narayana Medical College, Nellore, India

² Institute of Neurological Sciences of Bologna, Bologna, Italy

³ University Clinic of Neurology, Skopje, Macedonia

⁴ Department of Biomedical and Neuromotor Sciences, University of Bologna, Bologna, Italy

⁵ Psychiatric Hospital Skopje, Macedonia

⁶ Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, India

⁷ Department of Neurology & Neurological Sciences, Stanford University School of Medicine, Palo Alto, CA, USA

Received November 16, 2019; Accepted May 17, 2020

Antiepileptic drugs & hormonal contraceptive agents

Lower hormone levels

- Carbamazepine
- Clobazam
- Eslicarbazepine
- Felbamate
- Oxcarbazepine (>1200mg)
- Perampanel
- Phenobarbital
- Phenytoin
- Primidone
- Rufinamide
- Topiramate (>200mg)

No significant effects

- Clonazepam
- Ethosuximide
- Ezogabine
- Gabapentin
- Lacosamide
- **Lamotrigine***
- Levetiracetam
- Pregabalin
- Tiagabine
- **Valproate****
- Vigabatrin
- Zonisamide

* Estradiol lowers lamotrigine level

** Valproate can interact with other drugs but not hormonal contraceptives

Teratogenetic risks associated with antiepileptic drugs (AEDs)

- Valproate is associated with a significant risk of malformations (9.3%) and neurobehavioural deficits (7-10 points lower on IQ and X 4.9-fold increase in autism)
- Possible dose-dependent risks for all AEDs
- Intermittent risk of malformation for
 - Phenobarbital (5.5%), Topiramate (4.2%)
- Periconceptional folate improves neurobehavioural outcomes
- The risks associated with most AEDs and specific polytherapies are uncertain
- North American AED Pregnancy Registry
 - 1-888-233-2334 <http://www.aedpregnancyregistry.org>

The management of pregnancy and epilepsy: main clinical points

- Women with epilepsy should receive informed consent outlining risks **PRIOR** to conception.
- Despite increased risk, most children born to women with epilepsy are normal.
- Valproate is a poor 1st choice AED for most women with epilepsy of childbearing potential. If used, the dose should be as low as possible.
- Women with epilepsy of childbearing potential should be taking folate.
- The risks associated with many AEDs remain uncertain.