

Nordic multi-registry study of antiepileptic drug teratogenicity: the SCAN-AED study

A Population-based cohort study based on national registers from Norway, Denmark, Finland, Iceland and Sweden including more than 41 000 women using antiepileptic drugs in pregnancy

www.SCANAEED.org
Marte Helene Bjørk
University of Bergen
marte.bjork@uib.no

BACKGROUND

It is unknown why antiepileptic drug (AED) exposure in pregnancy harms some but not other children. A significant limitation of previous studies has been statistical power when studying rare outcomes such as congenital anomalies and neurodevelopmental disorders.

OBJECTIVE

The SCAN-AED study links the Nordic population registers to examine

- the effects of in utero exposure of AEDs on congenital anomalies and neurodevelopmental disorders
- whether teratogenic effects of in utero AED exposure are influenced by, AED dose, folic acid supplements, co-medication, comorbidity and socioeconomic factors.

METHODS

We have linked individual level data in Norway, Sweden, Denmark, Iceland and Finland from

- the Medical Birth Registries
- the National Prescription Databases
- the Hospital Discharge Registries
- the National Statistical Agencies

Datafiles are stored and accessed from the Statistics Denmark research server

- Exposure is determined as ≥ 1 redeemed prescription of ≥ 1 AED between conception and birth for

RESULTS

The population consists of approximately 4 700 000 children, of whom 23 000 have been exposed to AED in pregnancy.

The study is approved by regulatory authorities including the Ethics committees and the Data inspectorate/ombudsman in all countries. Data files have been delivered and are being analyzed.



AUTHORS and INSTITUTIONS

NORWAY: **Marte Helene Bjørk**, Silje Alvestad and Nils Erik Gilhus, University of Bergen, Haukeland University Hospital and Oslo University Hospital
DENMARK: Jakob Christensen, Yuelian Sun and Julie Werenberg Dreier, Aarhus University and Aarhus University Hospital
FINLAND: Maarit Leinonen and Mika Gissler, Drugs and Pregnancy Project, THL
ICELAND: Helga Zoega, University of Iceland
SWEDEN: Torbjörn Tomson, Karolinska Institutet, Sweden

ACKNOWLEDGEMENTS

NordForsk

The NorPreSS study

UNIVERSITY OF BERGEN

