

who manage girls, women of childbearing potential and men treated with valproate*

Guide on use of valproate

YOU MUST READ THIS GUIDE CAREFULLY BEFORE ANY PRESCRIPTION OF VALPROATE

Information about medicines containing valproate use can also be found in the Product Information (PI), available online at https://qr.medsinfo.com.au/tx/sw.cfm?h=swcepili or by scanning the QR code at the end of this document.

*This includes brands such as Epilim, Sodium Valproate Sandoz, Valpro EC and Valproate Winthrop.

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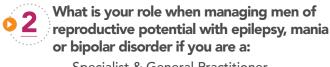
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- Congenital malformations
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BD: Bipolar Disorder; **HCP:** Healthcare Professional; **NDD:** Neurodevelopmental Disorders; **WCBP:** Women of Childbearing Potential.

Purpose of this Healthcare Professional Guide

Valproate use during pregnancy is harmful for the unborn child. Children exposed in utero to valproate have a higher risk for:

- Congenital malformations,
- Neurodevelopmental disorders,
- Lower weight at birth for the gestational age.

See chapter 3 for more information.

There is a potential risk of neurodevelopmental disorders in children born to men treated with valproate in the 3 months prior to conception. Three valproate educational tools have been developed specifically to address this risk.

These tools include:

- This HCP Guide
- 2 Patient Guides
- One specifically for girls and WCBP
- One specifically for men of reproductive potential

The objective of this HCP guide is to provide all HCPs involved in the patient journey with information about:

- The prescribing conditions in girls, WCBP and men of reproductive potential,
- The risks of teratogenicity, neurodevelopmental disorders and lower weight at birth for the gestational age, associated with the use of valproate during pregnancy,
- The potential neurodevelopmental risk, associated with the use of valproate in the 3 months prior to conception for men of reproductive potential,
- The actions necessary to minimise the risks.

HCPs targeted by this guide include:

- Specialists,
- General Practitioners,
- Gynaecologists/Obstetricians, Midwives, Nurses,
- Pharmacists.

For patients who are minors or without the capacity to make an informed decision, provide the information to their parents/legal representative/caregiver and make sure they clearly understand it.

Please read the most up-to-date version of the Product Information before prescribing valproate.

What you must know/do about the conditions of valproate prescription in females, girls and adolescents patients?

- Valproate must be initiated and supervised by a specialist experienced in the management of epilepsy, mania (Australia only) or bipolar disorder (New Zealand only).
- It should not be used in female children/adolescents and WCBP unless other treatments are ineffective or not tolerated.

She is being treated for: Mania/Bipolar **Epilepsy** She is of childbearing You must NOT prescribe valproate unless potential the patient has been provided information **Epilepsy:** from regarding the potential effects of valproate menarche during pregnancy and recommendations on to menopause the use of valproate Mania/BD: adult women You must NOT prescribe ✓! You must valproate unless there She is **pregnant** NOT prescribe is no suitable valproate alternative treatment

Overview of the Risk Management Strategy (for details read the Product Information)

- Assess patients for pregnancy potential,
- Explain the risks of congenital malformations, neurodevelopmental disorders and lower weight at birth for the gestational age,
- Perform a pregnancy test prior to initiation and during treatment, as needed,
- Counsel on the need for effective contraception throughout the treatment.
- Explain the need for pregnancy planning,
- Explain the need to urgently consult the physician in case of pregnancy,
- Review regularly (at least annually) the treatment by the specialist,
- Direct patients to the Patient Guide, available online at https://qr.medsinfo.com.au/tx/sw.cfm?h=swcepili or by scanning the QR code on the box

These conditions also concern women who are not currently sexually active unless the prescriber considers that there are compelling reasons to indicate that there is no risk of pregnancy.



What you must do if you are managing a girl/adolescent treated with valproate

- Explain to her or her parents/caregivers (depending on age) the risks of congenital malformations, neurodevelopmental disorders and lower weight at birth for the gestational age
- Explain to her or her parents/caregivers the importance of contacting the specialist once she experiences menarche
- Reassess the need for valproate therapy at least annually and consider alternative treatment options as soon as she experienced menarche
- Make efforts to switch her to alternative treatment before she reaches adulthood.

Specialist - Epilepsy

General Practitioner
- Epilepsy

Specialist - Mania/Bipolar Disorder

General Practitioner
- Mania/Bipolar Disorder

Gynaecologist/Obstetrician/ Nurse/Midwife

Pharmacist

SPECIALISTS prescribing valproate to girls and women of childbearing potential suffering from **EPILEPSY**

FOR ALL PATIENTS: Ensure the patient is aware of and discuss the patient guide which is available electronically through the QR code located on the box (https://gr.medsinfo.com.au/tx/sw.cfm?h=swcepili).

INITIAL valproate prescription



Only if:

- other treatments are ineffective or not tolerated
- pregnancy test is negative (for WCBP)

RENEWAL of valproate



NOT PLANNING a pregnancy

Reassess treatment at least annually

Explain/remind and ensure patient's understanding of

- I. The risks of congenital malformations, neurodevelopmental disorders and lower weight at birth for the gestational age for children exposed in utero
- II. The mandatory use of effective contraception (preferably an intra-uterine device, or implant, or 2 complementary forms including a barrier method)
 - even if patient has amenorrhea
 - without interruption during the entire valproate treatment duration
 - regardless of sexual activity status
 - referral for contraception services as needed

III. The need to:

- undergo pregnancy testing when required during treatment
- plan for pregnancy
- reassess epilepsy treatment with you annually

Ensure the patient is aware of the Patient Guide



What is your role?

Specialist - Epilepsy

Specifically for girls

- I. Explain the risks of congenital malformations, neurodevelopmental disorders and lower weight at birth for the gestational age to the parents/caregivers (and children depending on their age)
- II. Explain to the parents/caregivers (and children depending on their age) the importance of contacting the specialist once a female child using valproate experiences menarche
- III. Assess the most appropriate time to give advice on contraception
- IV. Reassess the need for valproate therapy at least annually
- V. Make efforts to switch the girls to alternative treatment before they reach adulthood



Explain that if she thinks she is pregnant or becomes pregnant, she should not stop valproate and contact you immediately.

Prescription in women



PLANNING pregnancy



In epilepsy, valproate is contraindicated during pregnancy unless there is no suitable alternative

Explain that contraception should only be stopped after complete valproate cessation

The patient should not stop valproate and consult you urgently



- I. Inform the patient and her partner about the risks
- to the unborn child exposed to valproate in utero
- of untreated seizures during pregnancy
- II. Explain the need to switch to alternative treatment if suitable, and that it takes time:
 - the new medication is gradually introduced as add-on to valproate - up to 6 weeks to reach effective dose
 - then gradually withdraw valproate over weeks and months - commonly 2-3 months
- III. If a seizure occurs during valproate withdrawal, maintain the minimum required dose



Ensure the patient is aware of the Patient Guide



If, in exceptional circumstances, a pregnant woman must receive valproate for epilepsy

Valproate should preferably be prescribed:

- as monotherapy
- at the lowest effective dose, with daily dose divided into several small doses
- as a prolonged release formulation

Refer your patient and her partner to:

- a gynaecologist/obstetrician/midwife
- a specialist experienced in pre-natal medicine for evaluation and counselling regarding the exposed pregnancy

What is your role? General Practitioner - Epilepsy

GENERAL PRACTITIONERS

managing girls and women of childbearing potential who are taking valproate for treatment of **EPILEPSY**

If she is...

NOT PLANNING a pregnancy

At each visit...



- I. The risks of congenital malformations, neurodevelopmental disorders and lower weight at birth for the gestational age for children exposed in utero
- II. The mandatory use of effective contraception (preferably an intrauterine device, or implant, or 2 complementary forms including a barrier method)
 - even if patient has amenorrhea
 - without interruption during the entire valproate treatment duration
 - regardless of sexual activity status

III. The need to:

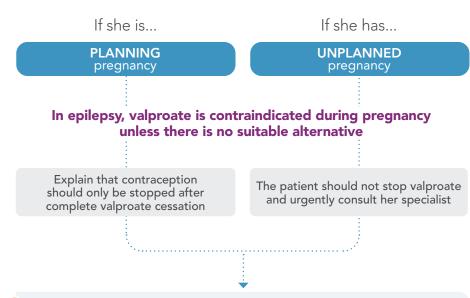
- undergo pregnancy testing when required during treatment
- plan for pregnancy
- reassess epilepsy treatment with her specialist annually



Specifically for girls

- I. Explain the risks of congenital malformations, neurodevelopmental disorders and lower weight at birth for the gestational age to the parents/caregivers (and children depending on their age)
- II. Explain to the parents/caregivers (and children depending on their age) the importance of contacting the specialist once a female child using valproate experiences menarche to consider alternative treatment
- III. Assess the most appropriate time to give advice on contraception

Explain that if she thinks she is pregnant or becomes pregnant, she should not stop valproate and contact her specialist immediately. FOR ALL PATIENTS: Ensure the patient is aware of and discuss the patient guide which is available electronically through the QR code located on the box (https://gr.medsinfo.com.au/tx/sw.cfm?h=swcepili).



- I. Inform the patient and her partner about the risks
 - to the unborn child exposed to valproate in utero
 - of untreated seizures during pregnancy
 - II. Refer promptly the patient to her specialist for switching to alternative treatment if suitable
 - III. Tell your patient to continue valproate until her specialist advises her to stop
- Ensure the patient is aware of the Patient Guide

Refer your patient and her partner to:

- a gynaecologist/obstetrician/
- specialist experienced in prenatal medicine for evaluation and counselling regarding the exposed pregnancy



or bipolar

SPECIALISTS prescribing valproate to women of childbearing potential for treatment of MANIA (Australia only) or BIPOLAR DISORDER (New Zealand only) FOR ALL PATIENTS: Ensure the patient is aware of and discuss the patient guide which is available electronically through the QR code located on the box (https://gr.medsinfo.com.au/tx/sw.cfm?h=swcepili).

INITIAL valproate prescription

RENEWAL of valproate

Prescription in women



NOT PLANNING a pregnancy

Reassess treatment

at least annually

Only if:

- other treatments are ineffective or not tolerated
- pregnancy test is negative



PLANNING pregnancy

UNPLANNED pregnancy

In mania or bipolar disorder, valproate is contraindicated during pregnancy

Switch to alternative treatment prior to conception

The patient should not stop valproate and consult you urgently

Explain/remind and ensure patient's understanding of

- I. The risks of congenital malformations, neurodevelopmental disorders and lower weight at birth for the gestational age for children exposed in utero
- II. The mandatory use of effective contraception (preferably an intra-uterine device, or implant, or 2 complementary forms including a barrier method)
 - even if patient has amenorrhea
 - without interruption during the entire valproate treatment duration
 - regardless of sexual activity status
 - referral for contraception services as needed

III. The need to:

- undergo pregnancy testing when required during treatment
- plan for pregnancy
- reassess mania or bipolar disorder treatment with you annually



Inform the patient and her partner about the risks

- to the unborn child exposed to valproate in utero
- of untreated bipolar disorder during pregnancy
- Explain that contraception should only be stopped after complete valproate cessation
- Valproate should be discontinued gradually over few weeks to reduce early recurrence 1
- Discontinue valproate
- Switch to alternative treatment:
- a fast cross tapering while initiating the alternative treatment is recommended²

Refer your patient and her partner to:

- a gynaecologist/obstetrician/ midwife
- specialist experienced in pre-natal medicine for evaluation and counselling regarding the exposed pregnancy



Ensure the patient is aware of the Patient Guide



Explain that if she thinks she is pregnant or becomes pregnant, she should not stop valproate and contact you immediately.

Ensure the patient is aware of the Patient Guide

What is your role? General Practitioner - Mania or bipolar

women of childbearing potential who are taking valproate for treatment of MANIA (Australia only) or BIPOLAR DISORDER (New Zealand only)

FOR ALL PATIENTS: Ensure the patient is aware of and discuss the patient guide which is available electronically through the QR code located on the box (https://qr.medsinfo.com.au/tx/sw.cfm?h=swcepili).

If she is...

NOT PLANNING a pregnancy

At each visit...



- I. The risks of congenital malformations, neurodevelopmental disorders and lower weight at birth for the gestational age for children exposed in utero
- II. The mandatory use of **effective contraception** (preferably an intrauterine device, or implant, or 2 complementary forms including a barrier method)
 - even if patient has amenorrhea
 - without interruption during the entire valproate treatment duration
 - regardless of sexual activity status

III. The need to:

- undergo pregnancy testing when required during treatment
- plan for pregnancy
- reassess mania or bipolar disorder treatment with her specialist annually

Ensure the patient is aware of the Patient Guide

Explain that if she thinks she is pregnant or becomes pregnant, **she** should not stop valproate and contact her specialist immediately.

If she is...

PLANNING pregnancy

In mania or bipolar disorder, valproate is contraindicated during pregnancy

Explain that contraception should only be stopped after complete valproate cessation

The patient should not stop valproate and urgently consult her specialist

I. Inform the patient and her partner about the risks

• to the unborn child exposed to valproate in utero

• of untreated mania or bipolar disorder during pregnancy

II. Refer the patient to her specialist to switch

to alternative treatment

Ensure the patient is aware of the Patient Guide

Refer your patient and her partner to:

- a gynaecologist/obstetrician midwife
- specialist experienced in pre-natal medicine for evaluation and counselling regarding the exposed pregnancy



What is your role? Gynaecologist/ Obstetrician/Nurse/ Midwife

GYNAECOLOGISTS, **OBSTETRICIANS, MIDWIVES, NURSES** managing girls and women of childbearing potential taking valproate

GIRLS and **NON-PREGNANT WOMEN** taking valproate



- I. The risks of congenital malformations, neurodevelopmental disorders and lower weight at birth for the gestational age for children exposed in utero
- II. The mandatory use of effective contraception (preferably an intrauterine device, or implant, or 2 complementary forms including a barrier method)
 - even if patient has amenorrhea
 - without interruption during the entire valproate treatment duration
 - regardless of sexual activity status

III. The need to:

- undergo pregnancy testing when required during treatment
- plan for pregnancy
- reassess the treatment with her specialist annually

Ensure the patient is aware of the Patient Guide

FOR ALL PATIENTS: Ensure the patient is aware of and discuss the patient guide which is available electronically through the QR code located on the box (https://gr.medsinfo.com.au/tx/sw.cfm?h=swcepili).

In epilepsy, valproate is contraindicated during pregnancy unless there is no suitable alternative.

In mania or bipolar disorder, valproate is contraindicated during pregnancy.

When a woman consults for an **EXPOSED PREGNANCY**: **REFER HER TO 2 SPECIALISTS**

Specialist n°1

One specialist of the disease for which valproate is prescribed for evaluation and counselling on switch and discontinuation if suitable for her

Specialist n°2

One specialist experienced in pre-natal medicine for evaluation and counselling regarding the exposed pregnancy

Ensure the patient is aware of the Patient Guide

Explain that if she thinks she is pregnant or becomes pregnant, she should not stop valproate and contact her specialist immediately.

PHARMACISTS counselling girls and women of childbearing potential taking valproate

FOR ALL PATIENTS: Ensure the patient is aware of and discuss the patient guide which is available electronically through the QR code located on the box (https://gr.medsinfo.com.au/tx/sw.cfm?h=swcepili).

In epilepsy, valproate is contraindicated during pregnancy unless there is no suitable alternative.

In mania or bipolar disorder, valproate is contraindicated during pregnancy.



Explain/remind and ensure patient's understanding of

- I. The risks of congenital malformations, neurodevelopmental disorders and lower weight at birth for the gestational age for children exposed in utero
- II. The mandatory use of effective contraception (preferably an intrauterine device, or implant, or 2 complementary forms including a barrier method)
 - even if patient has amenorrhea
 - without interruption during the entire valproate treatment duration
 - regardless of sexual activity status

III. The need to:

- undergo pregnancy testing when required during treatment
- plan for pregnancy
- reassess the treatment with her **specialist annually**



About educational materials

Patient Guide

- Ensure the patient is aware of this guide and that it can be found by scanning the QR code on the box
- Dispense valproate in the original package with an outer warning
- Unpacking should be avoided. If it cannot be avoided, always provide a copy of the Consumer Medicines Information and the outer box if available



Explain that if she thinks she is pregnant or becomes pregnant, she should not stop valproate and contact her specialist immediately.

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What are the risks if valproate is taken during pregnancy?

Valproate use during pregnancy is harmful for the unborn child. Children exposed in utero to valproate have a high risk for:

- Congenital malformations,
- Neurodevelopmental disorders,
- Lower weight at birth for the gestational age.

The risks are dose-related. There is no threshold dose below which no risk exists. Any dose of valproate during pregnancy can be harmful for the unborn child. The nature of the risks for children exposed to valproate during pregnancy is the same irrespective of the indication for which valproate has been prescribed.

Both valproate monotherapy and valproate polytherapy including other antiepileptics, are frequently associated with abnormal pregnancy outcomes.

In utero exposure to valproate may also result in:

- Unilateral or bilateral hearing impairment or deafness, that may not be reversible ⁴,
- Eye malformations (including colobomas, microphthalmos) that have been reported in conjunction with other congenital malformations. These eye malformations may affect vision.

Available evidence does not show that folate supplementation prevents birth defects due to valproate exposure⁵.

1. Congenital malformations



About 11% of children of epileptic women exposed to valproate monotherapy during pregnancy had major congenital malformations³.

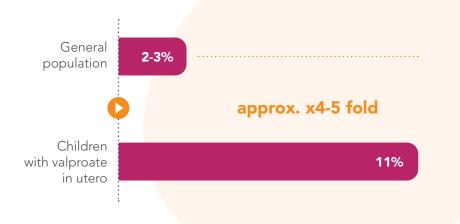
This risk is greater than in the general population (about 2-3%).

Available data show an increased incidence of minor or major malformations. The most common types of malformations included:

- Neural tube defects
- Facial dysmorphism
- Cleft lip and palate
- Craniostenosis
- Cardiac, renal and urogenital defects

- Limb defects (including bilateral aplasia of the radius)
- Multiple anomalies involving various body systems.

Risk of congenital malformations



What are the risks if valproate is taken during pregnancy?

2. Neurodevelopmental disorders (NDDs)

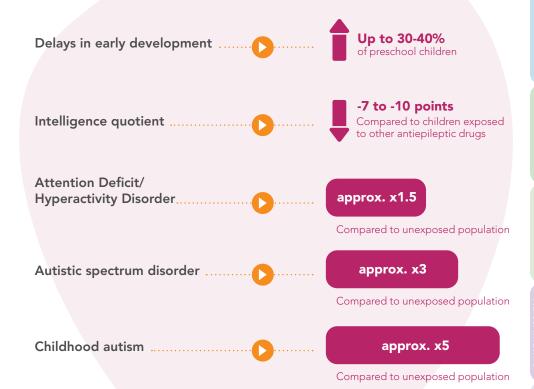


- Exposure to valproate in utero can have adverse effects on mental and physical development of the exposed children.
- ▶ The exact gestational period of risk is uncertain and the possibility of a risk throughout the entire pregnancy cannot be excluded.
- ▶ Up to 30 to 40% of preschool children exposed in utero may experience delays in their early development such as: ⁶⁻⁹
 - Talking and walking later,
 - Lower intellectual abilities,
 - Poor language skills (speaking and understanding),
 - Memory problems.
- In school aged children (age 6) with a history of valproate exposure in utero, intelligence quotient measured was on average 7-10 points lower than in children exposed to other antiepileptics¹⁰.

There are limited data on the long-term outcomes.

- An increased risk in children with a history of valproate exposure in utero compared to the unexposed population:
 - Attention deficit/hyperactivity disorder¹¹: approximately 1.5-fold,
 - Autistic spectrum disorder¹²: approximately 3-fold,
 - Childhood autism¹²: approximately 5-fold.

Risks increased in children exposed to valproate in utero



3. Lower weight at birth for the gestational age



▶ Epidemiological studies¹³-¹⁶ have reported a decrease in mean birth weight, and higher risk of being born with a low birth weight (<2500 grams) or small for gestational age (defined as birth weight below the 10th percentile corrected for their gestational age, stratified by gender) for children exposed to valproate in utero in comparison to unexposed or lamotrigine-exposed children.

What you must know about the potential risk to children of fathers treated with valproate in the 3 months prior to conception

A retrospective observational study on electronic medical records in 3 European Nordic countries indicates an increased risk of NDDs in children (from 0 to 11 years old) born to men treated with valproate in the 3 months prior to conception compared to those treated with lamotrigine or levetiracetam.

Comparison of risk of NDDs in children born to men treated with valproate in the 3 months prior to conception vs children born to men treated with lamotrigine or levetiracetam



The pooled adjusted hazard ratio for NDDs overall obtained from the meta-analysis of the datasets was 1.50 (95% Confidence Interval: 1.09, 2.07).

Due to study limitations, it is not possible to determine which of the studied NDD subtypes (autism spectrum disorder, intellectual disability, communication disorder, attention deficit/hyperactivity disorder, movement disorders) contributes to the overall increased risk of NDDs

The risk to children born to men stopping valproate at least 3 months prior to conception (i.e., allowing a new spermatogenesis without valproate exposure) is not known.

What is your role when managing men of reproductive potential with Epilepsy, Mania (Australia only) or Bipolar Disorder (New Zealand only)

SPECIALIST and GENERAL PRACTITIONER

Explain/remind and ensure patient's knowledge of

- I. The potential risk of neurodevelopmental disorders for children born to men treated with valproate in the 3 months prior to conception
- II. There are no data on this potential risk to children fathered more than 3 months after stopping valproate treatment (i.e., allowing a new spermatogenesis without valproate exposure)
- III. By way of precaution, discuss with the patient, at least annually, the need:
 - for **effective contraception**, including for the female partner, while using valproate and for 3 months after stopping the treatment
 - not to donate sperm during treatment and for 3 months after stopping the treatment
 - to consult his doctor to discuss alternative treatment options, as soon as he is planning to father a child and before discontinuation of contraception
 - for him and his female partner to contact their doctor for counselling in case of pregnancy if he used valproate within 3 months prior to conception

PHARMACIST

- Ensure the patient is aware of the Guide for men of reproductive potential, available electronically through the QR code located on the box (https://qr.medsinfo.com.au/tx/sw.cfm?h=swcepili)
- Discuss the need for effective contraception

REFERENCES

- **1.** Malhi GS, Bassett D, Boyce P, et al. Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for mood disorders. Australian and New Zealand J. Psychiatry 2015;49(12):1-185.
- **2.** Minutes and answers from the SAG Psychiatry meeting on Valproate-EMA/679681/2017.
- **3.** Weston J, Bromley R, Jackson CF, Adab N, Clayton-Smith J, Greenhalgh J, Hounsome J, McKay AJ, Tudur Smith C, Marson AG. Monotherapy treatment of epilepsy in pregnancy: congenital malformation outcomes in the child. Cochrane Database of Systematic Reviews 2016, Issue 11. Art. No.: CD010224.
- **4.** Foch C, Araujo M, Weckel A, Damase-Michel C, Montastruc JL, Benevent J, et al. In utero drug exposure and hearing impairment in 2-year-old children A case-control study using the EFEMERIS database. *Int J Pediatr Otorhinolaryngol.* 2018 Oct;113:192-7.
- **5.** Jentink J, Bakker MK, Nijenhuis CM, Wilffert B, de Jong-van den Berg LT. Does folic acid use decrease the risk for spina bifida after in utero exposure to valproic acid? *Pharmacoepidemiol Drug Saf.* 2010 Aug;19(8):803-7.
- **6.** Bromley RL, Mawer G, Love J, Kelly J, Purdy L, McEwan L *et al.* Early cognitive development in children born to women with epilepsy: a prospective report. *Epilepsia* 2010 Oct:51(10):2058-65.
- **7.** Cummings *et al.* Neurodevelopment of children exposed in utero to lamotrigine, sodium valproate and carbamazepine. *Arch Dis Child* 2011;96:643-647.
- **8.** Meador K *et al.* Cognitive Function at 3 years of age after fetal exposure to antiepileptic drugs. *NEJM* 2009;360(16):1597-1605.

- **9.** Thomas S.V et al. Motor and mental development of infants exposed to antiepileptic drugs in utero. *Epilepsy and Behaviour* 2008;(13):229-236.
- **10.** Meador KJ, Baker GA, Browning N, Cohen MJ, Bromley RL, Clayton-Smith J, Kalayjian LA, Kanner A, Liporace JD, Pennell PB, Privitera M, Loring DW; NEAD Study Group. Fetal antiepileptic drug exposure and cognitive outcomes at age 6 years (NEAD study): a prospective observational study. *Lancet Neurol.* 2013 Mar;12(3):244-52.
- **11.** Christensen J, Pedersen L, Sun Y, Dreier JW, Brikell I, Dalsgaard S. Association of prenatal exposure to valproate and other antiepileptic drugs with risk for attention deficit/hyperactivity disorder in offspring. *JAMA New Open*. 2019;2(1):e186606.
- **12.** Christensen J *et al.* Prenatal Valproate Exposure and Risk of Autism Spectrum Disorders and Childhood Autism. *JAMA* 2013; 309(16):1696-1703.
- **13.** Kilic D, Pedersen H, Kjaersgaard MI, Parner ET, Vestergaard M, Sørensen MJ *et al.* Birth outcomes after prenatal exposure to antiepileptic drugs-a population-based study. *Epilepsia.* 2014 Nov;55(11):1714-21.
- **14.** Hernández-Díaz S, McElrath TF, Pennell PB, Hauser WA, Yerby M, Holmes LB; North American Antiepileptic Drug Pregnancy Registry. Fetal growth and premature delivery in pregnant women on antiepileptic drugs. *Ann Neurol.* 2017 Sep;82(3):457-65.
- **15.** Margulis AV, Hernandez-Diaz S, McElrath T, Rothman KJ, Plana E, Almqvist C *et al*. Relation of in-utero exposure to antiepileptic drugs to pregnancy duration and size at birth. *PLoS One*. 2019 Aug 5;14(8):1-21.
- **16.** Diav-Citrin O, Shechtman S, Bar-Oz B, Cantrell D, Arnon J, Ornoy A. Pregnancy outcome after in utero exposure to valproate: evidence of dose relationship in teratogenic effect. *CNS Drugs*. 2008;22(4):325-34.

BD: Bipolar Disorder;

HCP: Health Care Professional;

NDD: Neurodevelopmental Disorders;

WCBP: Women of Childbearing Potential

Please review full Product Information before prescribing.
Full Product Information is available from sanofi-aventis australia
pty Itd by scanning the adjacent QR code, at https://qr.medsinfo.com.au/
tx/sw.cfm?h=swcepili or by contacting 1800 818 806.



