Valproate in children, young people and adults: summary of NICE guidance and safety advice

Valproate\(^1\) is licensed for use in epilepsy and bipolar disorder. It is also used off-label for depression, neuropathic pain, dementia and migraine. It is associated with a significant risk of birth defects (including spina bifida and face and skull malformations) and developmental disorders in children born to women who take valproate during pregnancy.

Valproate interacts with a number of medicines, including other antiepileptic medicines, antipsychotics and antibiotics. See the BNF, BNF for Children and relevant summary of product characteristics (SPCs) for more details. See also, the MHRA drug safety update carbapenems: concomitant use with valproic acid not recommended.

Women or girls of childbearing potential (including young girls who are likely to need treatment into their childbearing years)

Do not prescribe valproate for any condition, unless other options are ineffective or not tolerated, and the pregnancy prevention programme is in place. See the MHRA safety advice on valproate use by women and girls and temporary advice during the COVID-19 pandemic.

NICE’s guideline on bipolar disorder recommends:

* If a woman or girl of childbearing potential is already taking valproate, advise her to gradually stop the medicine because of the risk of fetal malformations and adverse neurodevelopmental outcomes after any exposure in pregnancy.
* The dose of valproate should be reduced gradually over at least 4 weeks to minimise the risk of relapse.

The SPCs for valproate advise:

* Valproate must be initiated and supervised by a specialist.
* The benefits and risks of treatment should be carefully reconsidered at regular treatment reviews.
* It should preferably be prescribed as monotherapy and at the lowest effective dose, if possible as a prolonged-release formulation.
* The daily dose should be divided into at least 2 single doses.

Stopping valproate: No woman or girl should stop taking valproate without first discussing it with their doctor (MHRA safety advice).

Women or girls who are pregnant or planning pregnancy

Valproate must not be used in pregnant women.

The pregnancy prevention programme advises:

* Women or girls who plan to become pregnant should be referred urgently to the specialist managing their condition. They should not stop contraception or valproate until advised to do so by their specialist.
* Women or girls with unplanned pregnancy should be urgently referred to a specialist and informed not to stop valproate before they are seen by the specialist.

The SPCs for valproate advise:

* All women or girls with valproate-exposed pregnancy, and their partners, should be referred to a specialist experienced in prenatal medicine for evaluation and counselling. See SPCs for details.

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1. Valproate refers to 3 formulations of valproate available in the UK: sodium valproate, valproic acid and valproate semisodium. Both valproate semisodium and sodium valproate are metabolised to valproic acid, which is the pharmacologically active component. The UK marketing authorisation for the 3 formulations of valproate differ depending on the individual product. At the time of publication (March 2019), licensed indications for valproate are the treatment of epilepsy, and the treatment of acute mania and for continuation treatment in people who have had mania that has responded to treatment with valproate. See the individual SPCs for further information.

2. Follow DVLA guidance on epilepsy and driving and MHRA advice on antiepileptic drugs: switching between different manufacturers’ products.
NICE recommendations on epilepsy

NICE’s guideline on epilepsies has recommendations on using valproate for the following seizure types:

- focal seizures
- newly diagnosed generalised tonic–clonic (GTC) seizures
- absence seizures
- myoclonic seizures
- tonic or atonic seizures
- Dravet syndrome
- Lennox–Gastaut syndrome
- benign epilepsy with centrotemporal spikes, Panayiotopoulos syndrome or late-onset childhood occipital epilepsy (Gastaut type)
- idiopathic generalised epilepsy (IGE)
- juvenile myoclonic epilepsy (JME)
- epilepsy with generalised tonic–clonic (GTC) seizures only
- childhood absence epilepsy, juvenile absence epilepsy or other absence epilepsy syndromes

NICE recommendations on bipolar disorder

NICE’s guideline on bipolar disorder makes recommendations on using valproate to manage:

- mania or hypomania in adults in secondary care
- bipolar depression in adults in secondary care
- bipolar disorder in adults in the longer term in secondary care

It also recommends that valproate should not be started in primary care to treat bipolar disorder:

- managing bipolar disorder in primary care

NICE quality standard on antenatal and postnatal mental health

NICE’s quality standard on antenatal and postnatal mental health includes a quality statement on:

- valproate