

Mood Stabilizers in Children & Adolescents

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Lithium

- Lithium is the only FDA approved drug for treatment of manic episodes in patients ages 12 years and older.

Disorders in which Lithium may be useful

- Mania
- Bipolar depression
- Aggressive behavior in hospitalized children with conduct disorder
- Adolescents with comorbid bipolar and substance use disorders

- Manic symptoms secondary to traumatic brain injury in children
- Preventing recurrent mood episodes in children and adolescents with bipolar disorders
- Maintenance treatment in adolescents

Baseline Assessments

- General medical history and physical examination
- Cr and Bun
- Calcium
- TFTs
- ECG
- CBC
- Pregnancy Test

Side Effects

- GI
- Cardiac Side Effects
- Renal Side Effects
- Thyroid
- Cognition
- Teratogenicity

Valproate

- It is currently approved by the FDA for the treatment of adults with partial complex seizures, migraines, or manic episodes of bipolar illness.

- In children and adolescents, may be effective in the treatment of mania, aggression, and migraine headaches.

Clinical Use

- Has half-life of 8-16 hours in children and young adolescents
- Optimal serum levels for treating mania are 85- 110 ug/ ml.

Baseline Assessments

- General medical history and physical examination, height and weight
- LFTs
- CBC diff and platelets
- Pregnancy Test

Side Effects

- GI (nausea and vomiting)
- Increased appetite, weight gain
- Liver Side Effects
- Pancreatitis
- Sedation
- Teratogenicity (neural tube defects)

Side Effects

- Thrombocytopenia
- Transient hair loss
- tremor
- hyperammonemia
- PCOS

Carbamazepine

- A long-acting form of carbamazepine has an FDA – approved indication for the treatment of acute manic or mixed episodes in adults with bipolar I disorder.

- In children and adolescents, carbamazepine may be useful for mania, mixed mania , bipolar depression , ADHD, and conduct disorder.

Clinical Use

- In patients ages 6-12 years , a reasonable starting dosage of carbamazepine is 100 mg twice daily and in patients ages 12 years and older, 100 mg three times daily .
- Carbamazepine serum levels 8-11 mg/ml.

- Carbamazepine daily dosage should not exceed 1000 mg/day in children ages 6-12 years and 1200 mg/day in patients ages 13 years and older.

Oxcarbazepine

- Is indicated for use in treatment of partial seizures in children
- Usefulness for BMD and other mood disorders in children and adolescents is unknown

Lamotrigine

- The FDA has approved lamotrigine for the maintenance treatment of bipolar I disorder in adults to delay the time to reoccurrence of mood episodes (e.g., depression , mania, hypomania, mixed episodes) in patients already treated for acute mood episodes with standard therapy.

- The FDA has issued a black box warning that states, "Lamictal is not indicated for use in patients below the age of 16 years."
- The risk of serious rash is three times in patients below the age of 16 years (1% vs. 3 in 1000 0/3%)

Gabapentin

- Gabapentin is an antiseizure agent approved for the treatment of partial seizures in patients older than age 12 years and post herpetic neuralgia in adults.

- Adult studies of Gabapentin as adjunctive therapy to Lithium or Valproate or as monotherapy have found it is **no** more effective than placebo for the treatment of mania.

- However, it may be useful in combination with other mood stabilizing agents for the treatment of comorbid **anxiety disorders** in individuals with bipolar disorder.

- In children and adolescents, gabapentin may be useful as a second or third line treatment , usually for **anxiety** or **sleep disorders** comorbid with bipolar disorder.

- Gabapentin has been reported to cause mania in adults and behavioral disinhibition in younger children

Topiramate

- Topiramate is indicated for monotherapy in patients 10 years of age or older , with epilepsy and in adults for prophylaxis of migraine headaches.

- Topiramate has been shown to be moderately effective in causing **weight loss** in adult and adolescent patients with psychotropic – induced obesity.
- It has not been shown to be an effective mood stabilizer.

- All antiepileptic drugs increased suicidality risk (About twice).



با تشکر از توجه شما: دکتر شاهرخ امیری