Primer for Prescription Medicines: The Mood Stabilizers

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The medications for Bipolar Disorder divide rather well into lithium (the first medication to be described in the literature for this disorder), the anticonvulsants and the calcium channel blockers. Together they are termed “mood stabilizers” because they can be used for both short-term (mania) and long-term (mood swing) symptoms of the disorder.

Lithium (EskalithTM, LithobidTM) was first described as a treatment for mania in 1873, but the bromide salt was used and the author of the paper attributed the effects to the bromide. It was not until the 1950s that John Cade reported that lithium itself was a successful treatment for manic episodes. But lithium can be very toxic, the serum level necessary for efficacy (0.5 to 1.5 mEq per liter) being very close to levels that can be damaging or even deadly (2.0 and above). Serum levels are necessary to determine whether the patient is within, under or over the therapeutic range. Early signs of toxicity include slurred speech, impaired gait, severe (coarse) tremor (fine tremor is often present as a side effect) and gastro-intestinal upset.

Lithium can also adversely affect the thyroid gland, as well as the kidneys and heart. Lithium is best used for Type I (classical manic-depressive) Bipolar Disorder. Typical doses are around 900 mg per day, although some patients require much more and very sensitive people may need much less. It is also used for treatment-resistant schizophrenia and aggression, and as an augmenting medicine with antidepressants that are only partially effective. Given the problems noted above, the search for alternative mood stabilizers has been very active.

Valproic acid (DepakeneTM, DepakoteTM) is an anticonvulsant that has been found to be more effective than lithium for Type II (rapid cycling, hypomanic) Bipolar Disorder and effective in some Type I patients. It may work because of its effects on GABA (gamma aminobutyric acid). Its side effects include nausea, vomiting, sedation, ataxia,

tremor and dysarthria. More serious are the rare cases of pancreatitis and liver toxicity that it can cause. Serum levels should be obtained, and the therapeutic range is 50 to 100 micrograms per milliliter. Carbamazepine (TegretolTM) is another anticonvulsant that has been helpful in Bipolar Disorder, but is more difficult to use because it has more interactions with other medicines, and even induces its own metabolism. Most patients therefore require an increase in dose after having been initially stabilized on this medicine. Again, serum levels should be watched, with the therapeutic range being four to 12 micrograms per milliliter. This medicine is not Food and Drug Administration (F.D.A.) approved for Bipolar Disorder, but numerous well-controlled studies have shown it to be effective for this disease.

Side effects include dizziness, ataxia and, more seriously, decreased white blood cell count, hepatitis and exfoliative dermatitis. Other newer anticonvulsants have also been used for Bipolar disorder, such as oxcarbazepine (TrileptalTM) and gabapentin (NeurontinTM) with variable success. In general, the doses of all the anticonvulsants are in the same range as when they are used to treat epilepsy. Some of these newer anticonvulsants are being, or soon will be, taken before the F.D.A. for approval for this indication.

Calcium channel blockers, such as verapamil (CalanTM) and diltiazem (CardiazemTM) are usually used for heart problems, but they too have been shown to be effective in Bipolar Disorder, although, again, they are not approved by the F.D.A. for such use. Cardiac effects – decreased blood pressure and slowed heart rate – are, as one might expect, the most common side effects. Either constipation or diarrhea may occur, as well as dry mouth, headache, and dizziness. Doses used are in the same range as those given for heart problems.

These medicines are all used, either alone or in combination with antipsychotic medicines, to get acute mania under control, and all may subsequently be used to reduce the risk of future manic or depressive episodes in bipolar disordered patients. None of them are very effective alone in the treatment of depression, even though one of them – carbamazepine – has a structure much like the older tricyclic antidepressants. The references below provide a more in-depth treatment of these medications.

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References

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