The Psychopharmacology Algorithm Project at the Harvard South Shore Psychiatry Program

Bipolar Depression Algorithm

Dana Wang[1], Arash Ansari[2], David N. Osser[1]

[1]Department of Psychiatry, Harvard Medical School, VA Boston Healthcare System, Brockton Division, Brockton MA

[2]Department of Psychiatry, Harvard Medical School, Brigham and Women's Faulkner Hospital, Jamaica Plain, MA

BACKGROUND

The psychopharmacology algorithm project at the Harvard South Shore Program published algorithms for bipolar depression in 1999 and 2010. Developments over the past 4 years suggest another update is needed.

METHODS

The 2010 algorithm and associated references were re-evaluated. A literature search was conducted on PubMed including review articles and recent studies to see what changes in the recommendations were justified. Exceptions to the main algorithm for special patient populations, such as patients with mixed states, ADHD, PTSD, substance use disorders, anxiety disorders, and women of childbearing potential and pregnant women, and those with common medical and psychiatric co-morbidities were considered.

RESULTS

ECT is still a 1st line option for patients in need of urgent treatment. Lithium is still the first-line pharmacotherapy. There are now three choices for second line: lamotrigine and quetiapine from before, and lurasidone is added. If psychotic symptoms are present, lamotrigine is less favored. After sequential trials of these four treatments, the next node considers valproate which has a small evidence base, or an antidepressant (bupropion and SSRIs preferred). Olanzapine monotherapy and olanzapine/fluoxetine (FDA-approved) are still postponed due to metabolic side effects. In mixed and rapid cycler cases, avoid antidepressants. Combinations of the above options are considered in cases of partial response.

CONCLUSIONS

This revision incorporates new treatments such as lurasidone and important new studies and organizes the evidence systematically.

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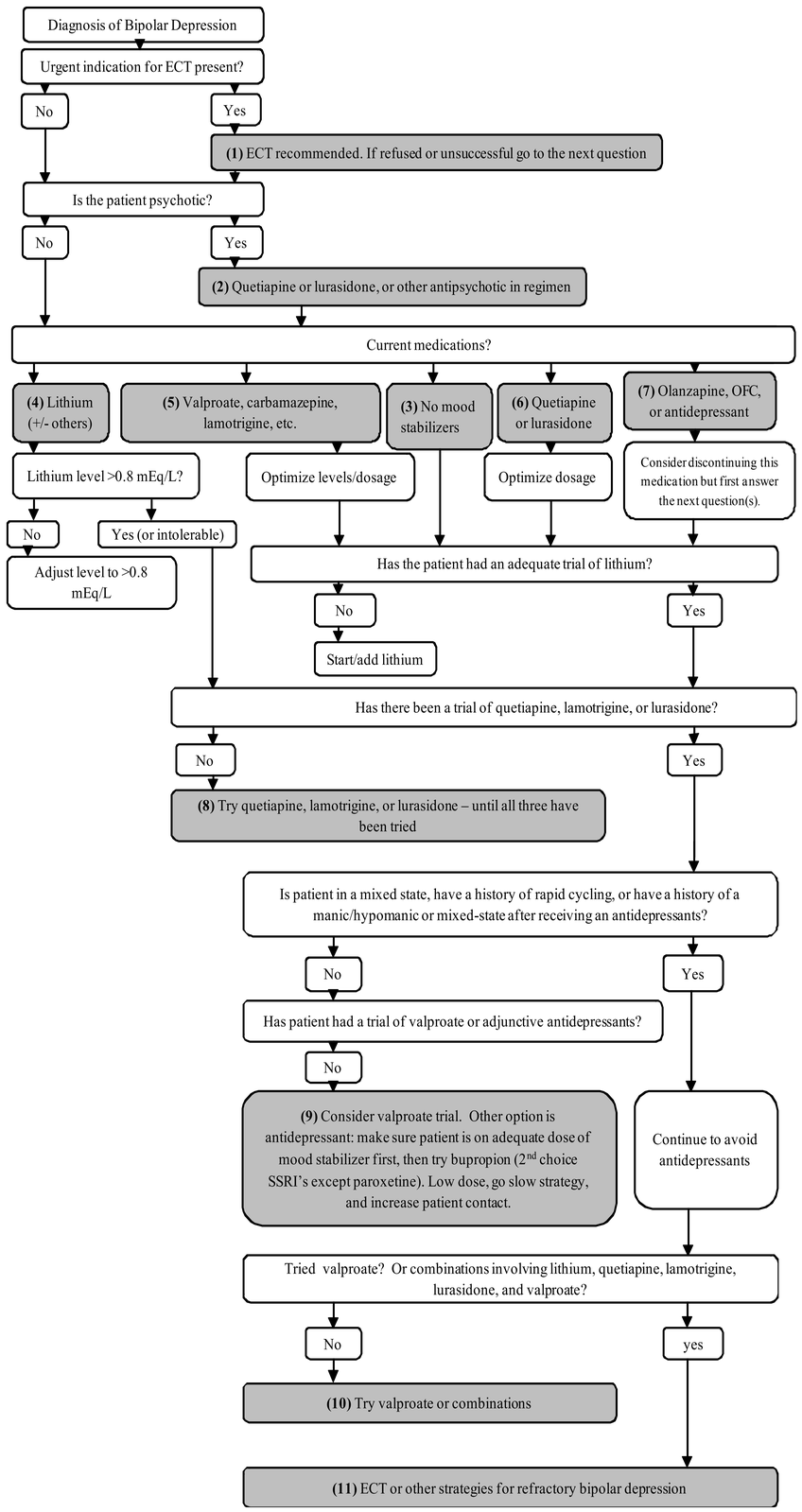

COMORBID CONDITIONS	RECOMMENDATIONS
Posttraumatic Stress Disorder	Common symptoms require differentiation (irritability, insomnia, decreased concentration). PTSD related insomnia and anxiety could be treated with **prazosin** instead of antidepressants. **Quetiapine** could be reasonable (weight gain). **Lamotrigine** has efficacy in BP depression and PTSD.
Attention Deficit/ Hyperactivity Disorder	Given the high prevalence of this comorbidity, patients should be on a **mood stabilizer** before adding any stimulant to address ADHD symptoms or excessive day time fatigue. Patients should be informed of the apparent high risk of mood destabilization. **Psychotherapeutic** approaches should be preferred if possible.
Treatment of women of child bearing potential and women who become pregnant during treatment	**Avoid valproate** in any woman with the potential to become pregnant: should the patient become pregnant it may already be too late to remove it before harm is done. **Carbamazepine is almost as harmful and should be avoided.** **Lithium** preferred over valproate and carbamazepine. The **atypical antipsychotics** with efficacy in BD are first choice. Though data are very limited in pregnancy, **lamotrigine** may be considered. A recent review of published cases concluded that **electroconvulsive therapy may be a last resort treatment**, contrary to previous impressions. But, if steps are taken to decrease potential risks taking into account both mother and fetus, it can be used for severe depression, catatonia, medication resistant illness, extremely high suicide risk, psychotic agitation, severe physical decline due to malnutrition or dehydration or other life threatening conditions. Procedure should be administered in hospital emergency setting or delivery room involving skilled team of psychiatrist, gynecologist/obstetrician, and anesthesiologist. Prescribe as few drugs as possible – ideally, one. When pregnancy occurs during treatment, it is usually best to continue the previous therapy to avoid exposure to multiple agents. Exception: if on valproate or carbamazepine (probably switch). **Adjust doses** as pregnancy progresses. Blood volume expands 30% in third trimester. Plasma level monitoring is helpful. Consider the risk of relapse or withdrawal while switching medications or changing doses. Anticholinergic drugs should not be prescribed to pregnant women except for acute, short-term need. Depot antipsychotics should not be routinely used in pregnancy: infants may show extrapyramidal symptoms for several months. Close follow up in post-partum and aggressive medication adjustment is recommended post-delivery.
Cardiac disease or presence of QTc-prolonging drugs	If risk of QTc prolongation is a significant concern, **quetiapine would be relatively undesirable**. Consider **lurasidone**. Review the patient's medications for other QTc-prolonging agents and monitor for risk factors for Torsade's such as bradycardia and electrolyte abnormalities.