### NEI’s Master Psychopharmacology Program
**Study Guide: Bipolar Disorders**

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<th>Subtopic</th>
<th>Benchmarks (You Should Be Able To)</th>
<th>Recommended Resources</th>
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| **Symptom Presentation and Assessment** | - Identify and describe symptoms of a manic, hypomanic, mixed, and major depressive episode  
- Describe the spectrum of bipolar disorders as well as different cycling patterns  
- List potential indicators that a depressive episode may be part of unipolar versus bipolar illness  
- Describe the potential symptomatic progression of mood disorders over a lifetime | **Learning Activities***  
- Depression With Mixed Features (CME video)  
- Guidelines for the Recognition and Management of Mixed Depression (article)  
**Additional Resources**  
- ADHD vs Bipolar Disorder: Are They Indistinguishable? (CME video) |
| **Neurobiology of Symptoms**     | - Associate each symptom of a major depressive episode with hypothesized brain regions and circuits  
- Associate each symptom of a manic episode with hypothesized brain regions and circuits  
- Describe the potential neurobiologic progression of mood disorders over a lifetime  
- Identify genetic markers under investigation for their relevance to bipolar disorders | **Learning Activities***  
- Link Between Mood Disorders and Metabolic Comorbidities (CME video)  
**Additional Resources**  
- Understanding Disease Models and Treatment Opportunities: Lessons from Metabolism and Inflammation (CME video) |

*You may choose any 24 non-expired Learning Activities to complete the requirements of the Master Psychopharmacology Program. For the full list of Master Psychopharmacology Program requirements, please visit nei.global/mpp.

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### Lithium

- **Subtopic:** Lithium
- **Benchmarks (You Should Be Able To):**
  - Describe the hypothesized mechanism of action for lithium
  - Describe the therapeutic profile for lithium
  - Describe the side effect profile for lithium
  - Identify recommended dosing and monitoring guidelines for lithium
  - Identify contraindications for the use of lithium
- **Recommended Resources:***
  - **Learning Activities***
    - Lithium’s Mechanism of Action: What We Know (CME animation)
    - Side Effect Management: Antipsychotic-Induced Weight Gain and Lithium-Induced Tremor (CME video)
  - **Additional Resources***
    - NEI Prescribe
    - 48-Year-Old Man Whose Successful Treatment With Lithium is Now Compromised By Possible Renal Toxicity

### Mechanisms of Anticonvulsant Mood Stabilizers

- **Subtopic:** Mechanisms of Anticonvulsant Mood Stabilizers
- **Benchmarks (You Should Be Able To):**
  - Identify anticonvulsants that act on voltage-sensitive sodium versus calcium channels
  - Describe the hypothesized mechanism of action for each anticonvulsant mood stabilizer
- **Recommended Resources:***
  - **Additional Resources***

### Clinical Characteristics of Anticonvulsant Mood Stabilizers

- **Subtopic:** Clinical Characteristics of Anticonvulsant Mood Stabilizers
- **Benchmarks (You Should Be Able To):**
  - Identify currently available anticonvulsant mood stabilizers
  - Describe the therapeutic profile for each anticonvulsant mood stabilizer
  - Identify the effective dose range and general titration requirements for each anticonvulsant mood stabilizer
  - Differentiate among anticonvulsant mood stabilizers in terms of risk of different side effects
  - Identify any contraindications or major drug interactions for each anticonvulsant mood stabilizer
- **Recommended Resources:***
  - **Additional Resources***
    - NEI Prescribe
    - Anticonvulsant medication prescribing information/package inserts.

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| **Mechanisms of Antipsychotic Mood Stabilizers** | - Describe the hypothesized mechanisms of action for antipsychotics as mood stabilizers  
- Identify the underlying mechanisms of action of common side effects of atypical antipsychotics                                                                 | **Learning Activities**  
- [Mechanism of Action of Cariprazine](#) (article)                                                                                                                                  |
| **Clinical Characteristics of Antipsychotic Mood Stabilizers** | - Identify currently available antipsychotic mood stabilizers  
- Describe the therapeutic profile for each antipsychotic mood stabilizer  
- Differentiate among antipsychotic mood stabilizers in terms of risk of different side effects  
- Identify any contraindications or major drug interactions for each antipsychotic mood stabilizer | **Additional Resources**  
- [NEI Prescribe](#)  
Antipsychotic medication prescribing information/package inserts. |

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### Study Guide: Bipolar Disorders

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<td><strong>Treatment Strategies</strong></td>
<td><strong>Identify appropriate monotherapies for (hypo)mania and bipolar depression</strong>&lt;br&gt;<strong>Identify appropriate combination treatments for bipolar disorders</strong>&lt;br&gt;<strong>Identify treatment methods for difficult or treatment-resistant cases of bipolar disorders</strong>&lt;br&gt;<strong>Identify appropriate adjunct treatments for specific residual symptoms of bipolar disorders</strong>&lt;br&gt;<strong>Identify pharmacological strategies for maximizing adherence to treatment</strong>&lt;br&gt;<strong>Describe recommended treatment maintenance strategies</strong>&lt;br&gt;<strong>Establish a metabolic monitoring protocol for patients receiving antipsychotic mood stabilizers</strong>&lt;br&gt;<strong>Identify common comorbidities of bipolar disorders as well as concomitant treatment strategies</strong>&lt;br&gt;<strong>Identify non-pharmacological strategies for the treatment of bipolar disorders</strong>&lt;br&gt;<strong>Identify novel mechanisms and strategies being investigated for potential application to mood stabilizing treatment</strong></td>
<td><strong>Learning Activities</strong>*&lt;br&gt;&lt;br&gt;<em>26-Year-Old Man Develops Antidepressant-Induced Activation (CME case)</em>&lt;br&gt;<em>Guidelines for the Recognition and Management of Mixed Depression (CME article)</em>&lt;br&gt;<em>Side Effect Management: Antipsychotic-Induced Weight Gain and Lithium-Induced Tremor (CME video)</em>&lt;br&gt;&lt;br&gt;<strong>Additional Resources</strong>&lt;br&gt;&lt;br&gt;Stahl SM. <em>Stahl’s essential psychopharmacology, fourth edition</em>. New York, NY: Cambridge University Press; 2013. (Chapter 8)&lt;br&gt;<em>NEI Prescribe</em>&lt;br&gt;Mood stabilizer medication prescribing information/package inserts.&lt;br&gt;<em>This Month in Psychopharmacology, Bipolar Disorder Articles</em></td>
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| Special Considerations      | Describe the risk/benefit ratios for using mood stabilizers in different age groups  
Differentiate the symptoms of bipolar disorders in children versus adolescents versus adults  
Identify mood stabilizers for which dosing recommendations are different for children and/or adolescents than they are for adults  
Explain recommendations for treating bipolar disorder in women who are pregnant or breastfeeding  
Identify mood stabilizers for which dosing recommendations are different for the elderly than they are for younger adults  
Identify mood stabilizers for which treatment recommendations are different for individuals with medical complications | **Learning Activities**  
34-Year-Old Woman With Bipolar Disorder Hospitalized in Her Third Trimester of Pregnancy (CME case)  
**Additional Resources**  
NEI Prescribe  
Mood stabilizer medication prescribing information/package inserts.  
Glad, Mad, or Sad: Diagnosing and Treating Pediatric Mood Disorders (CME video)  
A Labor of Drugs: Maintaining Difficult Medications During Pregnancy (CME video)  
This Month in Psychopharmacology, Bipolar Disorder Articles |

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