### NEI's Master Psychopharmacology Program
#### Study Guide: Substance Use and Impulsive-Compulsive Disorders

<table>
<thead>
<tr>
<th>Subtopic</th>
<th>Benchmarks (You Should Be Able To)</th>
<th>Recommended Resources</th>
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</table>
| **Symptom Presentation and Assessment** | - Define key terms related to abuse and reward  
- Identify screening and diagnostic tools for evaluating presence of a substance use disorder  
- Identify common presentations of acute intoxication with different drugs  
- Identify potential consequences of long-term abuse of substances  
- Evaluate potential conditions/behaviors that may be considered impulsive-compulsive disorders | Additional Resources**  
National Institute on Alcohol Abuse and Alcoholism (NIAAA) Professional Education Materials  
Synthetic Cannabinoids: What You Need to Know (video)  
Silent Epidemic: Addressing the Growing Use of Bath Salts (video)  
A Primer on Binge Eating Disorder Diagnosis and Management (CME article)  
Lightning Round Cases: Opioid Therapy IS Associated With Abuse and Misuse: Tips to Manage It in Your Practice (CME video) |
| **Neurobiology of Reward**      | - Link naturally occurring brain substances to corresponding drugs of abuse  
- Identify the final common pathway of reward  
- Describe the hypothesized brain regions, circuits, and neurotransmitters implicated in the reward system  
- Describe the hypothetical neurobiology of impulsivity and compulsivity  
- Explain the relevance of tonic versus phasic neurotransmission to risk of addiction | Additional Resources**  
Obesity as an Impulsive-Compulsive Disorder: Novel Treatments (animation) |

*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.

**These resources do not count toward the requirements of the Master Psychopharmacology Program and are merely listed here as useful resources for additional study.

http://cdn.neiglobal.com/content/mpp/studyguide/studyguide_sud.pdf
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<td><strong>Mechanisms of Drugs of Abuse</strong></td>
<td>Explain how each drug of abuse exerts its effects on the brain</td>
<td>Learning Activities*</td>
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<td>Explain the differential effects of mode of delivery on abuse potential</td>
<td><strong>Cannabis and the Developing Brain, Part 1: The Endocannabinoid System (CME animation)</strong></td>
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<td>Differentiate the mechanisms of action of methylphenidate, amphetamine, cocaine, and methamphetamine</td>
<td><strong>Cannabis and the Developing Brain, Part 2: Consequences of Heavy Use (CME animation)</strong></td>
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<td><strong>Mechanisms of Treatments for SUD and impulsive-compulsive disorders</strong></td>
<td>Differentiate the molecular actions of agonists, partial agonists, and antagonists at nicotinic receptors</td>
<td>Additional Resources**</td>
</tr>
<tr>
<td></td>
<td>Identify and differentiate mechanisms to increase abstinence and/or reduce craving and withdrawal for alcohol</td>
<td>Stahl SM, Grady MM. Stahl's illustrated substance use and impulsive disorders. New York, NY; Cambridge University Press; 2012.</td>
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<tr>
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<td>Identify and differentiate mechanisms to reduce craving and withdrawal for opiates</td>
<td>Obesity as an Impulsive-Compulsive Disorder: Novel Treatments (animation)</td>
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| Clinical Characteristics of Treatments for SUD and impulsive-compulsive disorders | Differentiate the clinical profiles of agents used to treat nicotine dependence  
Differentiate the clinical profiles of agents used to treat alcohol abuse/dependence  
Differentiate the clinical profiles of agents used to treat opioid dependence  
Explain the concept of reduced-risk drinking  
Prioritize treatment order when substance abuse/dependence presents with comorbid psychiatric disorders  
SUD medication prescribing information/package inserts.  
34-Year-Old Obese Female Contemplating Bariatric Surgery (CME case)  
Lightning Round Cases: Treatments for Opioid Dependence (CME video) |
| Special Considerations               | Explain recommendations for SUD treatment selection/maintenance in women who are pregnant or breastfeeding  
Identify SUD treatments for which recommendations are different for individuals with comorbid/medical complications                                                                                                                       | Learning Activities*  
42-Year-Old Man With ADHD and Alcohol Use Disorder (CME case)  
Additional Resources**  
SUD medication prescribing information/package inserts. |

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