

Medications for Treatment of Stimulant Use Disorders



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Disclaimer

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About Me

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The ASAM/AAAP

CLINICAL PRACTICE GUIDELINE ON THE

Management of Stimulant Use Disorder

Disclaimer: The following section is based on and cites directly from the American Society of Addiction Medicine (ASAM) into this Clinical Practice Guideline, a review of the available evidence and published literature, and is not based on FDA approval of medications for this treatment purpose.



Non-Psychostimulant Medications for Amphetamine-Type Stimulant Use Disorder

Bupropion = norepinephrine / dopamine reuptake inhibitor (NDRI) partially substitutes for stimulant-driven catecholamines

Naltrexone = opioid receptor antagonist attenuates the rewarding effects of stimulant-induced dopamine release

Topiramate = enhances GABA inhibition and decreases glutamate, dampening stimulant cravings

Mirtazapine = blocks α 2-adrenergic and serotonin receptors, reducing stimulant craving and withdrawal-related dysphoria

Bupropion

Amphetamine-Type Stimulant Use Disorder: Bupropion Recommendations

11. For patients with amphetamine-type stimulant (ATS) use disorder with low- to moderate-frequency (ie, less than 18 days per month) stimulant use, clinicians can consider prescribing bupropion to promote reduced use of ATS (*Low certainty, Conditional Recommendation*).
 - a. Clinicians can give bupropion additional consideration for patients with co-occurring TUD, as this medication can also reduce nicotine/tobacco use (*Low certainty, Conditional Recommendation*).
 - b. Clinicians can give bupropion additional consideration for patients with co-occurring depressive disorders, as this medication can also treat depression (*Low certainty, Conditional Recommendation*).

Bupropion + Naltrexone

Amphetamine-Type Stimulant Use Disorder: Bupropion and Naltrexone Recommendations

12. For patients with ATS use disorder, clinicians can consider prescribing bupropion in combination with naltrexone to promote reduced use of ATS (*Moderate certainty, Conditional Recommendation*).
 - a. Clinicians can give this combination additional consideration for patients with co-occurring AUD, as naltrexone can also reduce alcohol consumption (*Moderate certainty, Conditional Recommendation*).
 - b. Clinicians can give this combination additional consideration for patients with co-occurring TUD, as bupropion can also reduce nicotine/tobacco use (*Moderate certainty, Conditional Recommendation*).
 - c. Clinicians can give this combination additional consideration for patients with co-occurring depressive disorders, as bupropion can also treat depression (*Moderate certainty, Conditional Recommendation*).



Topiramate

Amphetamine-Type Stimulant Use Disorder: Topiramate Recommendations

13. For patients with ATS use disorder, clinicians can consider prescribing topiramate to reduce use of ATS (*Low certainty, Conditional Recommendation*).
 - a. Clinicians can give topiramate additional consideration for patients with co-occurring AUD, as this medication can also reduce alcohol consumption (*Low certainty, Conditional Recommendation*).



Mirtazapine for ATS

Amphetamine-Type Stimulant Use Disorder: Mirtazapine Recommendations

14. For patients with ATS use disorder, clinicians can consider prescribing mirtazapine to promote reduced use of ATS (*Low certainty, Conditional Recommendation*).
 - a. Clinicians can give mirtazapine additional consideration for patients with co-occurring depressive disorders, as this medication can also treat depression (*Low certainty, Conditional Recommendation*).



Non-Psychostimulant Medications for Cocaine Use Disorder

Bupropion = norepinephrine / dopamine reuptake inhibitor (NDRI) partially substitutes for stimulant-driven catecholamines

Topiramate = enhances GABA inhibition and decreases glutamate, dampening stimulant cravings



Topiramate

Cocaine Use Disorder: Topiramate Recommendations

10. For patients with cocaine use disorder, clinicians can consider prescribing topiramate to reduce cocaine use (*Low certainty, Conditional Recommendation*).
 - a. Clinicians can give topiramate additional consideration for patients with co-occurring alcohol use disorder (AUD), as this medication can also reduce alcohol consumption (*Low certainty, Conditional Recommendation*).

Psychostimulant Medications



Medications for StUD and ADHD Treatment

Concurrent Management of StUD and ADHD Recommendations

26. For patients with co-occurring StUD and ADHD, clinicians should address ADHD symptoms as part of the treatment of StUD (*Low certainty, Strong Recommendation*).

Clinicians should consider:

- a. prescribing psychostimulant medications to manage ADHD when the benefits of the medication outweigh the risks (*Low certainty, Strong Recommendation*),
- b. prescribing non-stimulant medications to manage ADHD when the benefits of psychostimulant medications do not outweigh the risks (*Low certainty, Strong Recommendation*), and
- c. behavioral approaches (*Low certainty, Strong Recommendation*).



Medications for ADHD Treatment

Stimulants:

Methylphenidate

Amphetamine

Dextroamphetamine

Lisdexamfetamine

Methamphetamine hydrochloride

Non-Stimulants

Norepinephrine Reuptake Inhibitors

Atomoxetine

Viloxazine

Alpha Agonists

Guanfacine

Clonidine

Non FDA approved = Bupropion

Psychostimulant Medications for StUD

General Psychostimulant Medication Recommendations

15. Recommendations related to the prescription of psychostimulant medications to treat StUD are only applicable to:

- a. physician specialists who are board certified in addiction medicine or addiction psychiatry; and
- b. physicians with commensurate training, competencies, and capacity for close patient monitoring (*Clinical consensus, Strong Recommendation*).

16. When prescribing psychostimulant medications for StUD, clinicians should maintain a level of monitoring commensurate with the risk profile for the given medication and patient. Monitoring may include pill counts, drug testing, more frequent clinical contact, and more frequent prescription drug monitoring program (PDMP) checks (*Clinical consensus, Strong Recommendation*).

Amphetamine-Type Stimulant Use Disorder

Amphetamine-Type Stimulant Use Disorder: Methylphenidate Formulations Recommendations

20. For patients with ATS use disorder, clinicians can consider prescribing a long-acting MPH formulation to promote reduced use of ATS (*Low certainty, Conditional Recommendation*).
 - a. Clinicians can give long-acting MPH formulations additional consideration for patients with moderate or higher frequency of ATS use at treatment start (ie, 10 or more days per month; *Low certainty, Conditional Recommendation*).
 - b. Clinicians can give long-acting MPH formulations additional consideration for patients with co-occurring ADHD, as these medications can also reduce ADHD symptoms (*Low certainty, Conditional Recommendation*).
 - c. When prescribing a long-acting MPH formulation, clinicians can consider dosing at or above the maximum dose approved by the FDA for the treatment of ADHD to effectively reduce ATS use (*Low certainty, Weak Recommendation*).



Modafinil for CUD

Cocaine Use Disorder: Modafinil Recommendations

17. For patients with cocaine use disorder and without co-occurring AUD, clinicians can consider prescribing modafinil to reduce cocaine use and improve treatment retention (*Low certainty, Conditional Recommendation*).

Topiramate + MAS-ER Dosing for CUD

Cocaine Use Disorder: Topiramate and Extended-Release Mixed Amphetamine Salts Recommendations

18. For patients with cocaine use disorder, clinicians can consider prescribing a combination of topiramate and MAS-ER to reduce cocaine use and cocaine craving (*Moderate certainty, Conditional Recommendation*).
 - a. Clinicians can give this combination additional consideration for patients with co-occurring AUD, as topiramate can also reduce alcohol consumption (*Moderate certainty, Conditional Recommendation*).
 - b. Clinicians can give this combination additional consideration for patients with co-occurring ADHD, as MAS-ER can also reduce ADHD symptoms (*Moderate certainty, Conditional Recommendation*).

Contingency Management





What is Contingency Management?

- Behavioral intervention in which individuals are 'reinforced' or rewarded for evidence of positive behavioral change.
- Reinforcement is provided with tangible rewards (such as gift cards, prizes) when an individual meets a goal such as reduction of use or abstinence from one or more target substances, as measured by negative urine testing for a substance.
- In effective CM interventions for SUD, the magnitude of reinforcement provided increases with sustained periods of abstinence.

What is Contingency Management?

- Escalating scale of a reward for CM for stimulant use disorder.
- If a patient does return to use and test positive, they lose the opportunity for a reward for that week, but a subsequent negative test with then “reset” the reward scale back to the prior level of escalated reward.

Table 2. Missed Sample and Positive UDT (Demonstrating Reset and Recovery)

Starting Incentive = \$10, incentives escalate by \$1.50 for each week of continuous abstinence

Week #	Visit #	UDT Result	Incentive Earned (\$)	Week #	Visit #	UD Result	Incentive Earned (\$)
1	1	Negative	10.00	7	13	Missed	0
1	2	Negative	10.00	7	14	Positive	0
2	3	Negative	11.50	8	15	Negative	10.00
2	4	Negative	11.50	8	16	Negative	19.00
3	5	Negative	13.00	9	17	Negative	19.00
3	6	Negative	13.00	9	18	Negative	20.50
4	7	Negative	14.50	10	19	Negative	20.50
4	8	Positive	0.00	10	20	Negative	22.00
5	9	Negative	10.00	11	21	Excused	0.00
5	10	Negative	16.00	11	22	Negative	22.00
6	11	Negative	16.00	12	23	Negative	23.50
6	12	Negative	17.50	12	24	Negative	23.50
				Total			\$323.00

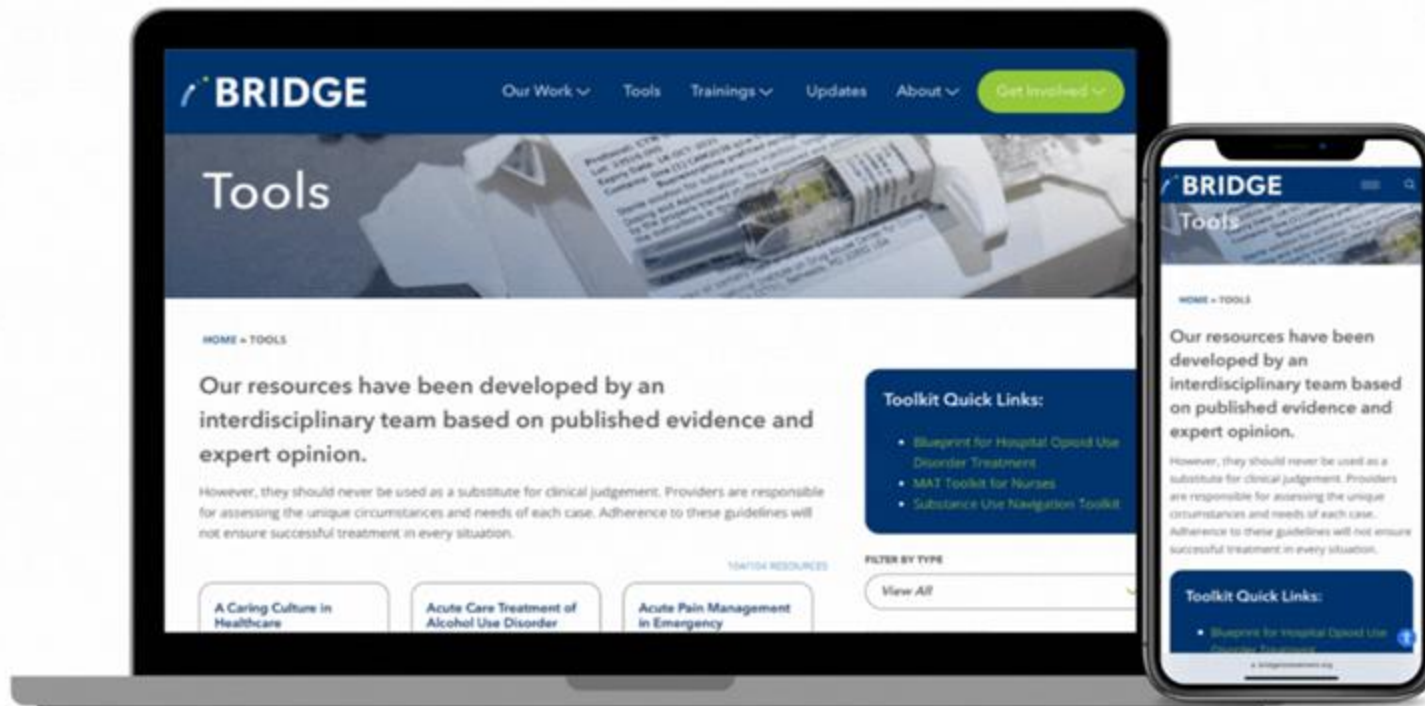
Take Home Points

- Drugs are chemical structures which do not carry any inherent moral value.
- Using drugs or having a substance use disorder is NOT a moral failing.
- Substance use disorders are TREATABLE medical conditions with medications and behavioral interventions.

Take Home Points

- Recovery is possible and all pathways to recovery are valid.
- Understanding the science behind substance use disorders helps to reduce stigma and promote evidence-based, compassionate responses.

Resources



"For a hundred years now, we have been singing war songs about addicts. I think all along we should have been singing love songs to them."

- Johann Hari

Thank You!



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