

Medications for Methamphetamine Use Disorder

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**There are no FDA-approved medications
to treat methamphetamine use disorder**

Behavioral Treatment

Motivational Interviewing
Contingency Management
Community Reinforcement Approach
Cognitive Behavioral Therapy

Not the topic of this lecture

SAMHSA has published a resource guide, “Treatment of Stimulant Use Disorders” that describes psychosocial approaches to addressing stimulant use disorder

Learning Objectives

Identify 3 non-FDA approved medications to treat methamphetamine use disorder (MUD)

Understand how to dose medication for MUD

Recognize medication for co-occurring substance use disorders

Patient Case

Eddie is a 28yo M with hx of HIV on Symtuza (DRVc/TAF/FTC) with intermittent compliance in clinic today requesting medication for MUD.

He smokes "crystal" methamphetamine daily, denies IVDU. He has tried to quit several times unsuccessfully and does not want to go back to rehab or engage in counseling or behavioral therapy.

He denies using other stimulants or opioids. He reports drinking high quantities of alcohol and smokes tobacco cigarettes.

Symtuza is his only prescribed medication.

What treatment for MUD can we offer Eddie?

Off Label Medications for MUD

Preferred Medication

Mirtazapine

Bupropion

Naltrexone

Topiramate

Other Options

Methylphenidate

Dextroamphetamine

CNS Drugs (2020) 34:337–365

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SYSTEMATIC REVIEW



Pharmacological Treatment of Methamphetamine/Amphetamine Dependence: A Systematic Review

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Mirtazapine

Two small RCTs

- Colfax et al: 60 MSM in San Francisco, reduction in meth positive urine (NNT 3.1), decreased sexual risk behavior
- Coffin et al: 120 MSM/transgender women, expanded replication trial, similar results

Dosing: 15mg QHS and increase to 30mg QHS after 3-7days

Interactions with ART: theoretical interaction with protease inhibitors

Bupropion

2 small RCTs showed reduction in meth use in low level users, 4 looked at patients with MUD

- Heinzerling et al: 85 patients with MUD, no difference between placebo and bupropion, though adherence low, sig difference in 7/13 patients adherent by plasma levels

Dosing: bupropion ER 150mg daily x 7 days, then 300mg daily

Interactions with ART: EFV/NVP may decrease bupropion levels

FDA approved to treat tobacco use disorder

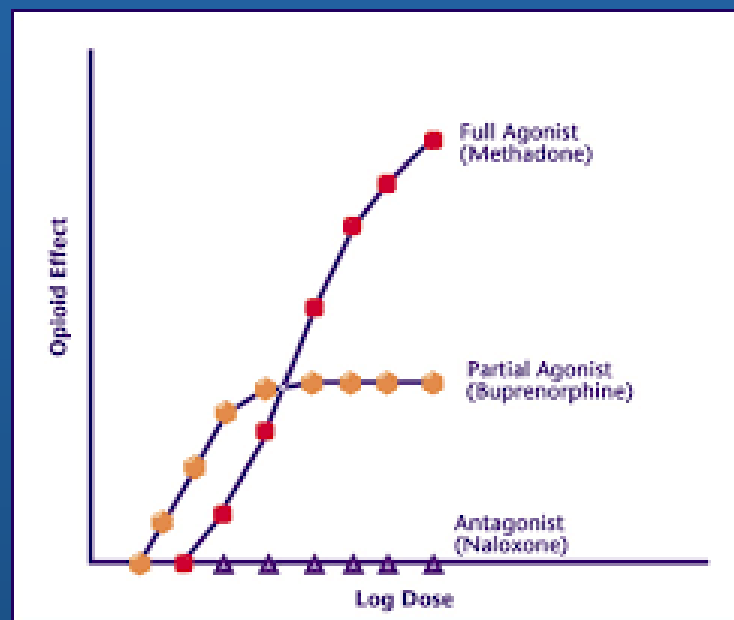
Naltrexone

5 RCTs, results were conflicting

Dosing: 50mg naltrexone PO daily
or 380mg IM Q month

FDA approved for alcohol use
disorder and opioid use disorder

No major ART interactions



Naltrexone + Bupropion



The NEW ENGLAND
JOURNAL of MEDICINE

1 large multi-site RCT

Trivedi et al: 403 patients, significant decrease in meth positive urine in treatment group

Dosing: Used IM naltrexone Q3 weeks (not PO) with very rapid up titration of bupropion to 450mg daily

Topiramate

2 RCTs, one showed no difference in patients with MUD, the other showed reduced drug use severity in patients on topiramate

Dosing: start at 25 mg QHS and titrate up in 25 to 50mg increments to 100mg BID or 200mg QHS

No major ART interactions

Caution in women of child-bearing age



Off Label Medications for MUD

Preferred Medication

Mirtazapine

Bupropion

Naltrexone

Topiramate

Other Options

Methylphenidate

Dextroamphetamine

What would you offer Eddie?

28yo M with hx of HIV on Symtuza (DRVc/TAF/FTC)

Methamphetamine Use Disorder

?Alcohol Use Disorder

?Tobacco Use Disorder



What would you offer Eddie?

28yo M with hx of HIV on Symtuza (DRVc/TAF/FTC)

Mirtazapine 30mg QHS

Bupropriion ER 150mg BID

Naltrexone 50mg PO daily or 380mg IM monthly

Rescue Naloxone PRN opioid overdose

- Contaminated stimulant supplies



Take Home Points

Behavioral treatment is the first-line treatment for MUD

There are several off-label medications with some efficacy in treating MUD

Mirtazapine 30mg QHS is a reasonable first-line medication

Treat co-occurring SUDs with FDA-approved medications

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Methylphenidate and Dextroamphetamine

3 RCTs on methylphenidate, 2 small RCTs on dextroamphetamine, results were conflicting

Dosing

- Methylphenidate SR 18 mg daily for 7 days, then 36 mg daily the 7 days, then 56 mg daily thereafter
- Dextroamphetamine SR 20mg daily, then increase by 10mg daily until stabilized or to a maximum of 110mg daily

No major ART interactions

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