Medications to assist in the treatment of Adolescent Substance Use Disorders

Leslie Hulvershorn, MD

Some Caveats

- Substantially less research in adults
- Research outcomes are different than adults
- Adolescents are less likely to require medications than adults

Medication Assisted Treatment

MAT= behavioral interventions + medications

Cannabis

- N-acetyl Cysteine (NAC): Doubled odds for negative UDS in RCT with 15-21 year olds. (Gray et al 2012) (600-1200 mg BID)
- "NAC was more effective at promoting abstinence among adolescents with heightened baseline depressive symptoms" (Tomko et al 2018)
- Also reduced alcohol consumption (Squeglia et al 2018)
- Topiramate has been found to be a helpful adjunct, but not well tolerated due to memory difficulties (Gray 2018)
- NOT helpful in adults

Alcohol

- Benzos for severe withdrawal (rare)
- Naltrexone (50 mg PO daily): Reduced likelihood of drinking and heavy drinking, blunted cravings, altered response to consumption in 22 15-19 year olds (Miranda 2014)
- Consider IM Naltrexone (Vivitrol) as well
- Acamprosate: 2012 Paper retracted

Opioids

- All forms of timely MAT improve retention in care (Hadland 2018)
- Naltrexone: Safe in youth, not much data, still likely a good choice
- Agonists (Buprenorphine, Methadone, LAAM): Only 2 trials

One study, with 35 participants, compared methadone with levo-alpha-acetylmethadol (LAAM) for maintenance treatment lasting 16 weeks, after which patients were detoxified.No difference.

- The other study, with 154 participants, compared maintenance treatment with buprenorphine-naloxone and detoxification with buprenorphine. Maintenance is helpful
- No placebo controlled RTCs: Risks are too great

(Carney 2018: MAT for Adolescent OUD in Primary Care, Pediatrics Reviews)

Nicotine

- NRT: Patch is the better tolerated. Works as well as gum. Negative pilot with nasal spray (Rubenstein 2009)
- Bupropion: 4 RCTs
- Varenicline (Chantix): Promising, concerns about mental health related side effects

(Bailey 2012)