Medication Assisted Treatments for Substance Use Disorders: An Update

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Disclosures

None
Learning Objectives:

Review some of the basics of substance use disorder treatment that can be accomplished in multiple medical settings: primary care, other medical settings, mental health settings, and substance use disorder treatment programs.

Focus:
- Pharmacotherapy for alcohol use disorders
- Office based treatment of opioid use disorders

SBIRT: How to Rapidly Screen for Alcohol Problems

Single Question with high sensitivity/specificity:
- In the past year, have you had any times when you had 5 (for women, 4) or more drinks at one sitting?
- If yes, explore drinking, offer advice for cutting back or stopping, if evidence of dependence refer to substance abuse treatment facility
- Note: a single question does not make a diagnosis, but indicates a need for further screening
### Screening for Substance Misuse/Use of Brief Intervention/Referral to Treatment

1.) What is your age? ___ yrs    2.) Are you (mark one):  O  Male  O  Female  O  Transgender

3.) Do you sometimes drink beer, wine, or other alcoholic beverages?  O  Yes  O  No  O  Decline to answer

   **If yes, please answer questions 3a and 3b, and continue**

   (One standard drink is any of these below)

3a.) On average, how many drinks do you have?

   ______ drinks per day and ______ drinks per week

3b.) In the past year, have you had: 5 or more drinks (men) or Or 4 or more drinks (women) in one day?

   O  Yes  O  No  O  Decline to answer

4.) In the past year, have you used a prescription drug for non-medical reasons?

   O  Yes  O  No  O  Decline to answer

5.) In the past year have you used an illegal or recreational drug?

   O  Yes  O  No  O  Decline to answer

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### Screening for Substance Misuse/Use of Brief Intervention/Referral to Treatment

**ALCOHOL:** Confirm amount of alcohol use with patient.

**Male** patient had 5+ drinks/day; **female** or any patient 65+ had 4+ drinks/day?  O  Yes  O  No

Frequency:

**Male** patient averages > 14 drinks/week; **female** or any patient 65+ averages > 7 drinks/week?  O  Yes  O  No

**DRUGS:** Follow up on patient “Yes” responses on items 4 and/or 5, above.

1.) “Please tell me the name of the illicit drug(s) and/or prescription medication used for non-medical reasons.”

2.) “How often do you use it?”

**CLASSIFY USE:** Does pt meet DSM-IV Substance Abuse/Dependence Criteria?  (see criteria on reverse)

Pt is:  O  Not at risk  O  At risk  O  Substance Abusing  O  Substance Dependent

**ADVISE:** “You are drinking/using more than is medically safe. I strongly recommend that you cut down (or quit), and I’m willing to help.”  Comments:

“Are you willing to consider making changes with your substance use?”  O  Yes  O  No  O  Maybe

   O  Conducted Brief Intervention?  O  Established Rx contract?  O  Completed CURES report?

Comments:

Pt. meeting DSM-IV criteria for sub. abuse or dependence should be scheduled for follow-up & offered referral to specialty care.  **Treatment Assistance Program** (TAP): 415-503-4730  “Let’s set up a follow-up appointment so we can check back in about this.”  Comments:

   O  Referred to specialty care/outside prog.  O  Arranged f/u care w/ me or other DGIM  O  Provided Educational Materials/Self-help info  O  Meds Provided care/outside prog.
Use of Medication Treatments to Treat Alcohol and Opioid Use Disorders

Pharmacotherapy Review

When to Consider Pharmacotherapy

Consider Precipitant To Treatment And Severity of Associated Medical/Psychiatric/Psychosocial Problems

- Family
- Employment
- Financial
- Medical
- Legal
- Psychiatric Comorbidity (including risk for harm to self or others)
- Relapse Potential/Failed Abstinence Based Treatment in Past

- The higher the acuity or severity; greater need for use of medication treatment (if there is an appropriate medication intervention available)
Maintenance Medications To Prevent Relapse To Alcohol Use (FDA approved)

- Disulfiram
- Naltrexone (oral and injectable)
- Acamprosate

Disulfiram

- How it Works: Blocks alcohol metabolism leading to increase in blood acetaldehyde levels; aims to motivate individual not to drink to avoid disulfiram-alcohol reaction
- Disulfiram/alcohol reaction: flushing, weakness, nausea, tachycardia, hypotension
  - Treatment of disulfiram-alcohol reaction is supportive (fluids, oxygen)
- Side Effects:
  - Common: metallic taste, sulfur-like odor
  - Rare: hepatotoxicity, neuropathy, psychosis
Disulfiram

- Contraindications: cardiac disease, esophageal varices, pregnancy, impulsivity, psychotic disorders, severe cardiovascular, respiratory, or renal disease, severe hepatic dysfunction: transaminases > 3x upper level of normal
- Avoid alcohol and alcohol containing foods
- Clinical Dose: 250 mg daily (range: 125-500 mg/d)
- Adherence: problem; but if drug is taken it works well (Fuller et al. 1994; Farrell et al. 1995); can be started in a substance use disorder treatment program

Pharmacotherapy of Alcohol Dependence: Naltrexone

- Oral Naltrexone Hydrochloride
  - Dose: 50 mg per day
- Extended-Release Injectable Naltrexone (Garbutt et al, JAMA 2005)
  - 1 injection per month/ 380 mg
Naltrexone Delays the Onset of Relapse to Alcohol

- Potent inhibitor of mu opioid receptor binding
  - May explain reduction in relapse
    - because endogenous are opioids involved in the reinforcing (pleasurable) effects of alcohol
  - May explain reduced craving for alcohol
    - because endogenous opioids may be involved in craving for alcohol
**Naltrexone Safety**

- Can cause hepatocellular injury in very high doses (e.g. 5-10 times higher than normal)
- Contraindicated in acute hepatitis or liver failure
- Check liver function before, q1 month for 3 months, then q 3 months
- Caution about ibuprofen and other non-steroidal anti-inflammatory agents
  - may have additive hepatic effects

VA/DoD CPG SUDs, www.oqp.med.va.gov/cpg/SUD/SUD_Vase.htm

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**Alcohol Relapse Prevention Medications: Acamprosate**

- **How it works:** Acamprosate is an amino acid derivative of taurine that stabilizes glutamatergic neurotransmission altered during withdrawal (Littleton 1995);
- Impact is anticraving, reduced protracted withdrawal
- Effective in reducing relapse to alcohol use in studies leading to FDA approval
- Not effective in Project COMBINE (JAMA 2006, 2008)
- Consider for those with liver impairment; those who fail other treatments
  - Dose: 2 g daily (2-333 mg pills three times/d)
  - Recommended length of treatment: 1 year
Treatment of Opioid Use Disorders

Therapeutic Options:

Initial treatment could include a combination of medication treatment plus psychosocial/psychotherapeutic interventions:

Option 1. Inpatient for medical withdrawal followed by:
- Residential or intensive outpatient treatment
- Individual/Group Drug Counseling

Medical withdrawal associated with high relapse rates and loss of tolerance can be associated with opioid overdose/death
- Naltrexone following withdrawal

Option 2 Office Based Treatment:
Medications to prevent relapse:
- Naltrexone (can only be used following medical withdrawal)
- Buprenorphine

Option 3: Some patients may be better suited for methadone maintenance (consider if ongoing opioid analgesia needed but this can only occur in a licensed opioid treatment program)

Know the options in your community.
Naltrexone

Naltrexone (opioid antagonist therapy)
- Block effects of a dose of opiate (Walsh et al. 1996)
- Prevents impulsive use of drug
- Relapse rates high (>80%) following detoxification with no medication treatment
- Dose (oral): 50 mg daily, 100 mg every 2 days, 150 mg every third day
- Injectable naltrexone (380 mg) for opioid dependence now FDA-approved; once a month injection
- Who gets naltrexone for opioid addiction?
  - Highly motivated
  - Does not want agonist/controlled substance
  - Some employment requirements

Partial Agonist Treatment (Buprenorphine)

What is agonist therapy?
Use of a long acting medication in the same class as the abused drug (once daily dosing)
- Prevention of Withdrawal Syndrome
- Induction of Tolerance
- What agonist therapy is not:
  - Substitution of “one addiction for another”
Opioid Use Disorders: Maintenance Therapy

**Determine opioid dependence**

- History (including previous records)
- Signs of dependence (withdrawal symptoms, tracks)
- Urine toxicology
- Naloxone challenge can be given if unsure of opioid dependence
- Prior to starting methadone:
  - ECG: determine if pre-existing prolonged QT interval, ECG after 30 days to compare to baseline; methadone prolongs QT in approx. 2%; 500 msec or greater—reduce dose

*Risk appears greater with doses over 100 mg/d

Buprenorphine: Unique in Opioid Use Disorders MAT

- Prescribing opioids to those with addiction prohibited since 1914
- Buprenorphine first drug approved for office-based treatment of opioid addiction
  - Available by prescription
  - Up to 30 day prescription may be given with refills
Opioid Use Disorders: Maintenance Therapy

Buprenorphine

- Mu opioid receptor partial agonist
- Strong affinity for mu opioid receptors; slow to dissociate
- Schedule III
- Little effect on respiration or cardiovascular responses at high doses
- Induction onto medication when in mild-moderate withdrawal
- Maintenance form: buprenorphine/naloxone combination; except pregnant women: use mono-formulation
- Average dose 8/2-16/4 mg daily (sublingual)

Opioid Use Disorders: Maintenance Therapy

Buprenorphine

- Can be used for withdrawal treatment or maintenance
- Maintenance treatment more effective than withdrawal treatment
- Mild withdrawal syndrome
- Primary care physicians, psychiatrists, addiction specialists are expected to be providers of this treatment
- Abuse by injection may be problem
- Drug Interactions: Atazanavir/ritonavir: increases buprenorphine concentrations; rifampin: decreases buprenorphine concentrations; opiate withdrawal possible
- DEA waiver required to prescribe
Opioid Use Disorders: Maintenance Therapy

Benefits:
• Lifestyle stabilization
• Improved health and nutritional status
• Decrease in criminal behavior
• Employment
• Decrease in injection drug use/shared needles

Ask a clinical question…
• Get a response from an expert PCSS mentor
• (888) 572-7724 (MAT) (855) 227-2776 (Opioids)
From www.MAT.org and www.PCSS-O.org
• download clinical tools, helpful forms and concise guidances (like FAQs) on specific questions regarding opioid dependence, use of buprenorphine, safe/effective use of opioids; information on training and peer support

Clinical Support Systems
Sponsored by Center for Substance Abuse Treatment/SAMHSA
Cocaine Intoxication: Treatment

- No antidote; treatment is supportive
- Problems:
  - Paranoid delusions
  - usually resolve spontaneously
  - neuroleptics (use high potency due to cocaine’s associations with seizures)
- Agitation
  - benzodiazepines
- Cardiovascular toxicity: hypertension, cardiac ischemia: good oxygenation, benzodiazepines, nitroglycerin
- Anticonvulsants do not prevent cocaine-associated seizures and are not recommended
  - Benzodiazepines preferred acutely
- Pharmacotherapy for cocaine use disorders: None

Management of Amphetamine Toxicity

- Confirm diagnosis by urine toxicology screen
- If ingestion is oral, use gastric lavage and activated charcoal; avoid ipecac emesis due to risk of seizure, arrhythmia, or hypertensive crisis
- For seizures use benzodiazepines acutely
- For psychosis/agitation use benzodiazepines, high potency antipsychotic (e.g.: haloperidol)
- Note: antipsychotics should only be used for emergent treatment
- Hyperthermia: external cooling
- Pharmacotherapy for Methamphetamine Use Disorder: none
Why is All of This Important?

• Drug and alcohol use disorders affect approximately 9% of Americans
• Substance use disorders are chronic, relapsing disorders that are likely to recur once diagnosed
• Effective pharmacotherapies are available and can be implemented in primary care
• Substance abuse can negatively impact other illnesses present in the patient (e.g.: alcoholic cardiomyopathy, COPD, HIV/AIDS, HCV, other ID) and/or can masquerade as an illness that the patient does not have (e.g.: HTN, seizure d/o, mental disorders)
• Can contribute to non-adherence to prescribed regimens, toxicities due to drug interactions

Question

• A patient with a long history of alcohol use disorder has frequent missed time from work related to heavy drinking nightly. He has been written up for missed time twice and is now fearful of losing his job. Which medication would you suggest to help to address this patient’s concerns?
• Naltrexone
• Acamprosate
• Disulfiram
Question

A new patient to your practice has DJD treated with hydrocodone and now complains of frequent headaches. The patient has been overusing pain medication and has needed early refills twice recently. Further assessment indicates that the patient likely has developed an opioid use disorder. What pharmacotherapy would you consider for such a patient?

• Naltrexone
• Buprenorphine
• Methadone

Question

A 34 year old man describes a 3 year history of weekend alcohol (6-12 beers nightly) and heroin use (nasal) with friends. He notes that in the past 2 months he has experienced some, achiness, nausea and diarrhea on Monday mornings and has missed work on some Mondays due to this illness which has caused problems for him at his job. He asks for advice on what is happening to him and whether there is a medication or other treatment that can help him.

• What is happening with this patient?
• What treatment would you recommend?
Thank you!

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References

SAMHSA, National Survey on Drug Use and Health, 2014


VA/DoD CPG SUDs, www.oqp.med.va.gov/cpg/SUD/SUD_Vase.htm


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Office of National Drug Control Policy (ONDCP) www.ondcp.gov