Recipe Book for Medication-Assisted Treatment (MAT) Integration

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Disclaimers and Appreciation

• I do not receive any funding—honoraria, contractual, research, or otherwise—from any pharmaceutical or healthcare company

• I do not have investments or ownership in any pharmaceutical or healthcare company

• Many of the graphical slides in today’s presentation are from PCSS-MAT (the Providers’ Clinical Support System for Medication Assisted Treatment). I appreciate the use of these materials in today’s presentation.
Recipe Book for MAT Integration

Teaching Objectives

• To understand the optimal staffing and patient care models for MAT services

• To learn about critical training and logistical issues needed for implementation

• To discuss common system and patient-care challenges with starting MAT services
Definitions of Addiction

- Is a primary, chronic disease of brain reward, motivation, memory and related circuitry that leads to characteristic biological, psychological, social and spiritual manifestations—ASAM
- Is a mental, physical, and spiritual disease—Big Book of AA
- Is a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences—NIDA

An addict is not a bad person trying to get good, but is a sick person trying to get well
### DSM-5 Criteria for Substance Use Disorder: Recommendations and Rationale

<table>
<thead>
<tr>
<th></th>
<th>DSM-IV Abuse&lt;sup&gt;a&lt;/sup&gt;</th>
<th>DSM-IV Dependence&lt;sup&gt;b&lt;/sup&gt;</th>
<th>DSM-5 Substance Use Disorders&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous use</td>
<td>X</td>
<td>–</td>
<td>X</td>
</tr>
<tr>
<td>Social/interpersonal problems related to use</td>
<td>X</td>
<td>–</td>
<td>X</td>
</tr>
<tr>
<td>Neglected major roles to use</td>
<td>X</td>
<td>–</td>
<td>X</td>
</tr>
<tr>
<td>Legal problems</td>
<td>X</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Withdrawal&lt;sup&gt;d&lt;/sup&gt;</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Tolerance</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Used larger amounts/longer</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Repeated attempts to quit/control use</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Much time spent using</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Physical/psychological problems related to use</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Activities given up to use</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Craving</td>
<td>–</td>
<td>–</td>
<td>X</td>
</tr>
</tbody>
</table>

**Figure Legend:**
- DSM-IV and DSM-5 Criteria for Substance Use Disorders<sup>a</sup> One or more abuse criteria within a 12-month period and no dependence diagnosis; applicable to all substances except nicotine, for which DSM-IV abuse criteria were not given.
- DSM-IV Dependence<sup>b</sup> Three or more dependence criteria within a 12-month period.
- DSM-5 Substance Use Disorders<sup>c</sup> Two or more substance use disorder criteria within a 12-month period.
- Withdrawal<sup>d</sup> Withdrawal not included for cannabis, inhalant, and hallucinogen disorders in DSM-IV.

Cannabis withdrawal added in DSM-5. **SEVERITY INDICATORS:** Use number of criteria met (from 2 to 11) as an overall severity indicator mild (2-3 criteria), moderate (4-5), and severe (6 or more) disorders.

Hasin et al., 2013, Am J Psychiatry
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Introduction to MAT

- MAT stands for Medication Assisted Treatment for addictive disorders or substance use disorders (SUDs)

- Currently refers to FDA-approved treatments for nicotine, alcohol, and opioid/heroin use disorders

- There are also medications that have been “off-label” due to known effects on SUDS

- Many clinical trials are examining novel medications, drugs and vaccines for possible MAT use
Currently Available Medications
For Nicotine/Tobacco Use Disorders

- For cessation or relapse
- Nicotine replacement (gum, patches, spray, lozenges)
- Bupropion (Zyban, Wellbutrin)
- Varenicline (Chantix)
Currently Available Medications For Alcohol Use Disorders

• Acute Withdrawal (Benzodiazepines—longer acting, or off-label anticonvulsants)

• Relapse Prevention
  • Disulfiram (Antabuse)
  • Acamprosate (Campral)
  • Naltrexone (Oral tablets-ReVia; XR Injection-Vivitrol)
Currently Available Medications For Opioid Use Disorders

- Full agonist (methadone)—from a specialized, certified, and licensed methadone provider
  - Partial agonist (buprenorphine)
    - For withdrawal, detox, or maintenance
    - Available in tablets, SL films, buccal films, and now implant
    - Brand names include Suboxone, Zubsolv, Bunavail, Probuphine (implant)
  - Antagonist (Naloxone-Narcan; Naltrexone-ReVia, Vivitrol)
Comparison of Activity Levels

% Mu Receptor Intrinsic Activity

DRUG DOSE

no drug low dose high dose

Full Agonist (e.g. heroin)

Partial Agonist (e.g. buprenorphine)

Maximum opioid agonist effect is never achieved
Even when all mu receptors occupied

Antagonist (e.g. naloxone)
What is the best recipe for a MAT Clinic

- Utensils and appliances needed
- Key ingredients
- Recipe with exact amounts
- Cooking/culinary skills
- Tasting/eating
- Making changes for the next time
What is the best recipe for a MAT Clinic?

• Utensils and appliances needed
  Site Visit, Pharmacy, Lab Issues
• Key ingredients
  Staff Hiring, Training
• Recipe with exact amounts
  Prescribers + “Glue Person”
• Cooking/culinary skills
  Direct care, procedures, logistics
• Tasting/eating
  Start seeing and treating patients
• Making changes for the next time
  Evaluation, lunch-n-learn, e-consults
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Key Ingredients

- Opioid Addicted Patients
- Trained Prescribers
- MAT Coordinator
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Key Ingredients

Opioid Addicted Patients

- Heroin vs. Prescription Opioids
- Motivated vs. Mandated vs. Monitored Patients
- Chronic Pain / Physiologically Dependent Patients
- Co-morbid medical illnesses or psychiatric disorders
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Key Ingredients

Prescriber of MAT

- Physicians must complete 8 hour “waiver training” and receive special DEA X-number

- As of end of 2016, Nurse Practitioners (APNs) and Physician Assistants (PAs) may complete 24 hours of training and apply for prescriptive authority

- Number of allowed patients varies—from 30 to 100 to 275

- Most often reported barrier to MAT implementation is inexperience/concern for withdrawal in initial patient inductions

3,4
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Key Ingredients

MAT Coordinator / “Glue Person”

- Could be CADC, LCSW, MSW, LPN, RN, Other
- Is primary conduit between patients and prescribers
- Manages referrals, scheduling, medication availability issues, patient tracking
- May conduct on-site MAT groups or connects with community providers/groups
- Is available for patients and trouble shoots often on a daily basis
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Utensils and Appliances

- Clinical Space
- Medication Availability
- Behavioral Treatment
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Utensils and Appliances

Clinical Space

• No specific requirements

• Helpful to have bathroom nearby for urine toxicology screens and GI issues in opioid withdrawal

• Ideal to have 2 patient rooms so that prescriber (MD, NP, PA) can be monitoring an induction while also seeing other MAT or primary care patients simultaneously

• No emergency equipment needed. COWS only requires phone/watch (for pulse) and pen light (for pupil dilation).

• Need a small conference or group room on weekly basis (if on-site MAT groups are to be facilitated)
Medication Availability

- Bup/Nx tablets are now generic
- Most insurers have Suboxone, Zubsolv, and/or Bunavail are their formularies as well (occasional prior auth)
- Immediate availability of Bup/Nx will dictate the induction model (on-site observed vs. “home” non-observed)
- Partnering with on-site or nearby pharmacy for Bup/Nx
- Naltrexone XR (Vivitrol) is being added to more formularies but prior authorization is often required—very expensive
- If stocking/storing Naltrexone XR, will need refrigerator
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Utensils and Appliances

Behavioral Treatment

• On-site MAT groups

• 12 Step groups (AA, NA, others)

• SMART Recovery

• Refuge Recovery

• Referral to IOP or other treatment program

• Individual Therapy
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Skills Needed, Cooking Times

• Models of Induction
• Clinical Tools / Toxicology Tests
• Patient Flow/Scheduling
• Clinic Management/Common Problems
  • Diversion, Other SUDs, Pain
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Models of Induction/Care

• *Delivery*—patient already inducted at another site

• *Made from Scratch*—on-site assessment, induction, monitoring

• *Out of a Box*—on-site instructions with “home” non-observed induction
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Models of Induction/Care

Delivery

- Comes to your clinic already on MAT
- From hospital ER\(^5\) or inpatient ward\(^6\)
- From correctional setting\(^7\)
- From induction center (hub-and-spoke model)\(^8\)
- From substance abuse tx center
  - Detox, residential, sober living
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Models of Induction/Care

*Made from Scratch*

- Traditional model taught in waiver training
- Inductions are on-site and observed (COWS Instrument)
- Requires prep time (pre-assessment), space for extended period (on induction day), med availability, and more staff time
- Ensures Bup/Nx taken correctly and able to monitor for precipitated withdrawal
- Proposed to have greater retention and less diversion than the “home induction” model
Out of the Box

- Patients are given a prescription and instructions—written, online, video—on when and how to take Bup/Nx

- Patients have to assess timing of their last use and severity of withdrawal before taking medication (SOWS instrument)

- Does not require extended clinic visit or space occupation

- Does not require on-site medication

- A very good option in patients who have been previously prescribed Bup/Nx maintenance, who have been given Bup/Nx for detox purposes, or who have successfully used on the streets/via diversion
**Observed vs. Unobserved**

<table>
<thead>
<tr>
<th>Potential factors to consider</th>
<th>Observed</th>
<th>Unobserved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective and tolerability</td>
<td>+++</td>
<td>(+)</td>
</tr>
<tr>
<td>Establish treatment structure</td>
<td>+++</td>
<td>-</td>
</tr>
<tr>
<td>Development of therapeutic alliance</td>
<td>++</td>
<td>-/+</td>
</tr>
<tr>
<td>Confirm baseline withdrawal (and presence of physiologic dependence)</td>
<td>+++</td>
<td>-/+*</td>
</tr>
<tr>
<td>Convenience/preference</td>
<td>-/+</td>
<td>+++</td>
</tr>
<tr>
<td>▪ MD</td>
<td>-/+</td>
<td>+++</td>
</tr>
<tr>
<td>▪ Patient</td>
<td>-/+</td>
<td>++</td>
</tr>
<tr>
<td>Resources/cost</td>
<td>--</td>
<td>+</td>
</tr>
<tr>
<td>Co-morbidity</td>
<td>-/+</td>
<td>-/+</td>
</tr>
</tbody>
</table>

* Note: pt’s can present for evaluation in mild withdrawal but start Bup out of the office
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Clinical Tools / Toxicology Testing

• Screening and assessment tools

• Patient-centered educational materials (including Naloxone training), patient-provider agreement

• Other helpful documents—sample induction notes/progress notes, policy/procedures, FAQs for covering physicians, billing information, protocol/algorithm, implementation checklist

• Prescription monitoring website
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Clinical Tools / Toxicology Testing

Toxicology Testing

• Urine vs. Saliva—ease of use, $$, detection window

• Send-out lab—know what is tested for

• POC testing—likely need assay with high detection of opiates (eg 300 ng/dl)

• POC testing—need separate methadone, buprenorphine, oxycodone, and, maybe, fentanyl
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Patient Flow / Scheduling

- Three phases of treatment—induction, stabilization, and maintenance
- Guidelines are continually changing (TIPS reference)
- After induction, a followup visit or call the next day is recommended
- At our sites, we provide
  - a one-week rx for 4-6 weeks
  - two week rx for the following 6-8 weeks, then
  - monthly thereafter
  - issues with lost rx, diversion, problematic tox results resets the process
- As in cooking, MAT clinic flow and scheduling is often dictated by the shape in which it was prepared. Your management may differ based upon staffing, space, capacity, etc. within your clinic.
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Patient Management / Common Issues

• MAT Coordinator keeps tracking log to know when rx are due, most recent toxicology results, current schedule (weekly, biweekly, monthly), other

• Anticipate / Plan for Common Issues
  
  • Urine toxicology positive for opiates, methadone, fentanyl

  • Urine toxicology negative for buprenorphine

  • Urine toxicology repeatedly + for THC, BZD, cocaine, PCP,amphetamine

  • Patient seeking BZDs or prescription opiates / tramadol

  • Lost/stolen prescriptions

  • Missed/late appointments—policy around walk-ins

  • Patient seeking BZDs
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Patient Management / Common Issues

• How to manage
  • Opioid Dependence and Co-Morbid Psychiatry Issues
  • Opioid Dependence and Other SUDs (alcohol, cocaine, BZD, other)
  • Chronic Pain
  • Acute Pain (surgeries, trauma, etc)
Medications as part of MAT services are not the solution, but may be a key part to it.

At best, the MAT component can help persons with SUDs reach sobriety/recovery sooner.

At worst, the MAT component may help prevent a person from overdosing and allow them to live one more day.
The opioid epidemic is enormous in scope

There is much funding/grants, trials, programs, task forces, clinical passion, and political fervor about how to address the epidemic

Fortunately, a result of the hysteria is a complex but extensive support, education, training, and mentoring network for MAT

As we tell our patients, don’t be afraid to ask for help!!
References