Integrating Medication Assisted Treatment Into Primary Care

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OPIOID PRESCRIBING AND MEDICAL ASSISTED THERAPIES IN PRIMARY CARE

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Disclosures

- Other than being passionate about serving vulnerable underserved populations….

  I have nothing else to disclose.

Workshop Agenda

- Brief pertinent history
- State of the State
- UVM Birth Control Study
- Harm Reduction
- The Vermont Experience
  - Hub & Spoke
  - Starting and titrating treatment
  - Urine drug screen
  - Treating co-morbid mental health issues
  - Handling relapse

Birth Control Study

- **Increasing Contraceptive Use Among Women With Opioid Use Disorder at Risk for Unintended Pregnancy**
- **Recognizing possible outcomes of co-localizing family planning and medication assisted treatment services**

Birth Control Study

- ***Medical:* Over the past decade there was a fivefold increase in neonatal abstinence syndrome, a drug withdrawal syndrome, 1.2 to 5.8 per 1,000 hospital births (Patrick et al., 2012).**
- ***Economic:* It is conservatively estimated that hospital charges to care for these infants exceed $700 million/year, almost exclusively covered by Medicaid (Patrick et al., 2012).**
- ***Legal:* Only 10 states prohibit publicly funded substance abuse treatment programs from discriminating against pregnant women (Guttmacher Institute, 2017).**

Birth Control Study

Factors contributing to Low contraceptive use:

- **Stigma**
- **Barriers to Care:**
  - **Transportation**
  - **Childcare**
- **Psychosocial Stressors**
- **Cost of using birth control**
  - **Attending appointment**
  - **Cost of refill or device**
  - **Remembering to take/use**

Outcomes associated with not using contraception:

- **Unintended pregnancy, which also contributes to:**
  - **Relapse risk**
  - **Psychosocial instability (i.e. tipping the scales toward homelessness and food insecurity)**
  - **CPS involvement**

Contingency Management

***Incentivizing follow-up visits*:**

- **Over two-fold increase in number of visits women attend**
  - → **Multiple opportunities to discuss family planning strategies**
    - → **Higher rates of uptake of most effective contraception (i.e., IUDs and implants) and decreased rates of unintended pregnancy**

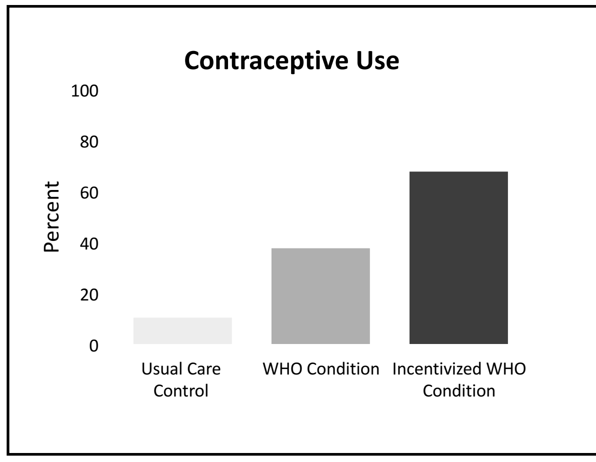
Birth Control Study

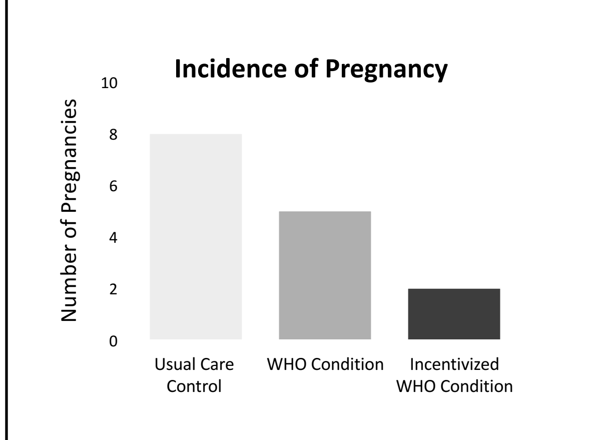
Average Number of Visits Completed Among Women Who Initiated Contraception

Number of Visits

14
12
10
8
6
4
2
0

WHO Condition
Incentivized WHO Condition





Acronyms:

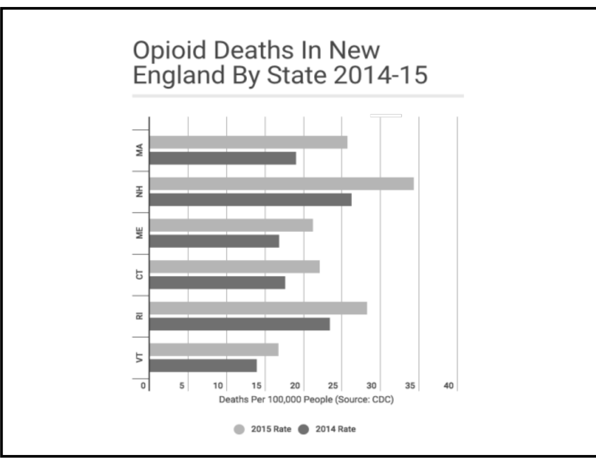
ACEs: Adverse Childhood Experience
ADAP: VT DOH Division of Alcohol and Drug Abuse Programs
DEA: Drug Enforcement Agency
HLOC: Higher Level Of Care
IVDU: Intravenous Drug Use
MAT: Medication Assisted Therapy
OBOT: Office-Based Opioid Treatment, i.e. Spoke
OTP: Outpatient Treatment Program, i.e. methadone clinic, i.e. OUD: Opioid Use Disorder
SAMHSA: Substance Abuse and Mental Health Services
ASAM: American Society of Addiction Medicine Administration
UDS: Urine Drug Screen

Pejorative Language

- Not abuser = now user
- Addict = person with Substance Use Disorder
- Junkie = Person with Substance Use Disorder
- Opiate Addict = person with OUD
- Dirty = positive; Clean = negative
- Non-Compliance = Non-Adherence
- Relapse = Return to use
- Addiction ≠ Dependence

2016 Comprehensive Addiction And Recovery Act (CARA)

- **November 2016 - NPs and PAs able to complete Buprenorphine Waiver Course Training necessary to obtain DEA X-Waiver**
- **Allows treating maximum 30 patients in first year, 100 patients after that - NPs/PAs currently capped at 100 patients**
  MDs capped at 275 patients
- **AANP/ASAM currently offering course for free**



Addiction (SUD) vs Dependence

- **Dependence is characterized by the physiologic SYMPTOMS of tolerance and withdrawal**
- **SUD is characterized by a CHANGE IN BEHAVIOR as a direct result of biochemical changes in the neuro pathways of the brain after prolong use of addictive substances**

Substance Use Disorder (SUD) is Characterized by

ABCDE's of SUD

- **Inability to consistently Abstain;**
- **Impairment in Behavioral control;**
- **Craving; or increased "hunger" for drugs or rewarding experiences;**
- **Diminished recognition of significant problems with one's behaviors and interpersonal relationships; and**
- **A dysfunctional Emotional response.**

ASAM Definition of Addiction vs Dependence

- **Addiction is a primary, chronic relapsing disease of brain reward, motivation, & memory.**
- **Addiction affects neurotransmission and interactions within reward structures of the brain, including the nucleus accumbens, anterior cingulate cortex, basal forebrain and amygdala,**
- **Motivational hierarchies are altered and addictive behaviors supplant healthy, self-care related behaviors.**
- **Addiction also affects neurotransmission and interactions between cortical and hippocampal circuits and brain reward structures, such that the memory of previous exposures to rewards (such as food, sex, alcohol and other drugs) *leads to a biological response to external cues, in turn triggering craving and/or engagement in addictive behaviors.***

Dependence

- ✧ **Physical dependence to opioids can develop if an individual consumes opioids for an extended period of time.**
- ✧ **However, the presence of physical dependence does not mean he or she is addicted to opioids.**
- ✧ **It simply points to the physical changes in the brain that occur with any prolonged use of opioids.**

Clinical Symptoms of Dependence

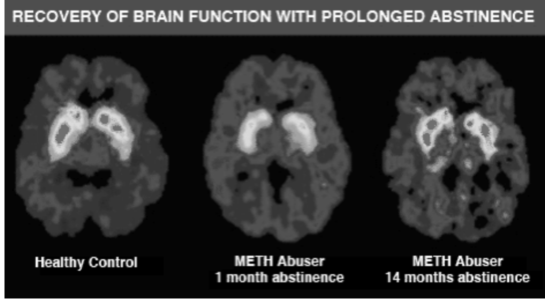
- Opioid dependence manifests itself similarly in most people and has a predictable series of symptoms.
- Classifications in both the *DSM-IV-TR*38 and *ICD-1039* mark opioid dependence as a disease that contains:

✓ Craving
✓ Tolerance
✓ physical dependence

Characteristic Bio-Psycho-Socio-Spiritual Manifestations of SUD

- ***Deficit in the function of reward circuits***, such that drugs and behaviors which enhance reward function are preferred;
- Cognitive and affective distortions, which impair perceptions compromising the ability to deal with feelings, resulting in *significant self-deception*;
- *Disruption of healthy social supports* and problems in interpersonal relationships which impact resiliencies;
- *Exposure to trauma or stressors* that overwhelm an individual's coping abilities;
- *Distortion in meaning, purpose and values* that guide attitudes, thinking and behavior;

The Brain on Drugs



Brain Reward Pathway
TRIGGERS

The memory of previous exposures to rewards (such as food, sex, alcohol and other drugs) ➔

Biological and behavioral response to external cues ➔

Triggering craving and/or engagement in addictive behaviors.

Cognitive Changes in SUD

- ❑ **The belief that problems experienced in one's life are attributable to other causes rather than being a predictable consequence of addiction.**
  - ❑ **External locus of control**

Emotional Changes in SUD

a) Increased anxiety, dysphoria and emotional pain;

b) Increased sensitivity to stressors;

c) Difficulty in identifying feelings, distinguishing between feelings and the bodily sensations of emotional arousal, and describing feelings to other people (sometimes referred to as alexithymia).

Co-Occurring Disorders

- Depression
- Anxiety disorders
- PTSD
- OCD
- ADD & ADHD
- Sleep disorders
- Constipation
- Stimulant Use Disorders
- Sedative Use Disorders
- Dentition / Oral Health
- Endocarditis
- Tobacco Use Disorder
- Weight Change
- Bone Mass
- Skin Abcesses
- Unplanned Pregnancies
- STI /Hep C /HIV

high, high, high co-morbidities

Posttraumatic Stress Disorder (PTSD) 12%
Alcohol Use Disorder (AUD) 8%
Major Depressive Disorder (MDD) 10%
Generalized Anxiety Disorder (GAD) 6%
MDD and PTSD 11%
PTSD and AUD 9%
AUD and GAD 1%
MDD, PTSD, and AUD 7%
PTSD, AUD, and GAD 0.2%
MDD, PTSD, GAD, and AUD 0.4%
PTSD and GAD 1%
MDD and AUD 1%
MDD, PTSD, and GAD 0.4%
MDD, AUD, and GAD 1%
MDD and GAD 4%
Diagnosis other than MDD, GAD, PTSD, and AUD 27%

Figure Legend:

Comorbidity of Major Depressive Disorder, Posttraumatic Stress Disorder, Alcohol Use Disorder, and Generalized Anxiety Disorder[aa] Rates are average weighted percentages from Houston VA/Menninger (N=264).

Am J Psychiatry. 2013;170(1):59-70. doi:10.1176/appi.ajp.2012.12070999

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Why Do We Need to Do **More** to Help People with Co-Occurring Disorders?

- **More** treatment failures & cost
- **More** relapse
- **More** re-hospitalization
- **More** ER visits
- **More** vulnerability: violence, suicide, homelessness, arrests
- **More** illness and earlier deaths
- **More** resistance to treatment

Addiction as an attachment disorder – work of Phil Flores (2004)

- Individuals who have difficulty establishing emotionally regulating attachments are more inclined to substitute drugs and alcohol for their deficiency in intimacy
- Deprivation of age-appropriate developmental needs causes constant searching for something "out there" that can be substituted for what is missing "in here".
- Substance use disorder may be a consequence and solution for impaired attachment relationships, ultimately an attempted solution to this problem that will inevitably fail

Adverse Childhood Experiences (ACE)

What we know about ACE:

- **The prevalence and risk of alcoholism, use of illicit drugs, & injection of illicit drugs increased as the number of childhood exposures increased.**
- **In comparing persons with ≥4 childhood exposures to those with none, odds ratios were 10.3 for injected drug use.**
  - Felitti, et al, 1998

https://www.youtube.com/watch?v=GQwJCWPG478

Process of moving into an addicted state: the need for harm reduction policies

- **Enjoyment of using decreases; begins to feel more like a necessity than a choice**
- **Use continues despite increasing negative consequences**
- **Avoidance of pain becomes the primary motivator to continue to use**

Introduction to Harm Reduction

- Data from Harm Reduction International's 2016 Global State of Harm Reduction reports that 800,000 people in the US are injection drug users (2016)
- The inability for people to get into treatment is in part due to providers who are not willing to provide addiction treatment in their practices and partly due to federal rules that prevented NPs & PAs from prescribing buprenorphine for OUD
- It is now estimated that there are 164 deaths in the US daily due to the opioid crisis

Harm Reduction

- What is Harm Reduction ?
- Controversy of Harm Reduction ?
- How and where do you already practice Harm Reduction ?

Defining Harm Reduction

- Policies, programs and practices that aim to reduce the harms associated with the use of psychoactive drugs in people unable or unwilling to stop. – Harm Reduction International
- Attempts to reduce adverse consequences of drug use among persons who continue to use. Developed in response to the excesses of a "zero tolerance approach". – Nat'l Center for Biotechnology Information.
- Described as a strategy engaged by individuals or groups that aim to reduce the harms associated with certain behaviors. – NIH (evolved from illicit drugs to alcohol, tobacco, and sex)

An approach rather than a goal

- **Harm Reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use (and other risky behavior)**
- **Harm Reduction is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs**
- **Working TOWARDS abstinence**

harmreduction.org/about-us/principles-of-harm-reduction/

Harm Reduction

One must remain alive for the brain to heal…

Harm Reduction

- **Safe Recovery – needle exchange**
- **Cash Clinics**
- **Primary Care (SPOKES)**
- **OPT**
- **HUBS**
- **Residential Treatment Programs**
- **Birth Control**
- **Acute Hospitalizations**

Classic example of Harm Reduction

- Shifts the moral context of health care away from fixing individuals towards ***reducing harm***
- Controversy:
  - Needle Exchange programs (NEP) // Opioid substitution therapy (OST)
    - saving lives vs enabling vs encouraging IVDU
    - Prevention of STI vs encouraging sex in adolescence
    - Preventing second hand smoke vs enabling with smoking zones

HR Response

Patient/Client Education

- Safe injection technique
- Caution with testing drug
- Naloxone training

So what is stigma?

✧ A social process in which people are labeled, set apart, and linked to undesirable characteristics

✧ Rationales are constructed for devaluing, rejection and exclusion

Stigma and Cultural Sensitivity

- Protect yourself with strong policies and medication contracts.
- Harm Reduction v. Abstinence
- Disease Model of Addiction: Relapse/Return to Use
- Lying and Manipulation
- Microaggression: A comment or action that is subtly and often unintentionally hostile or demeaning to a member of a minority or marginalized group, Miriam Webster, officially added February 2017

What Complicates Recovery?

Cultural Sensitivity

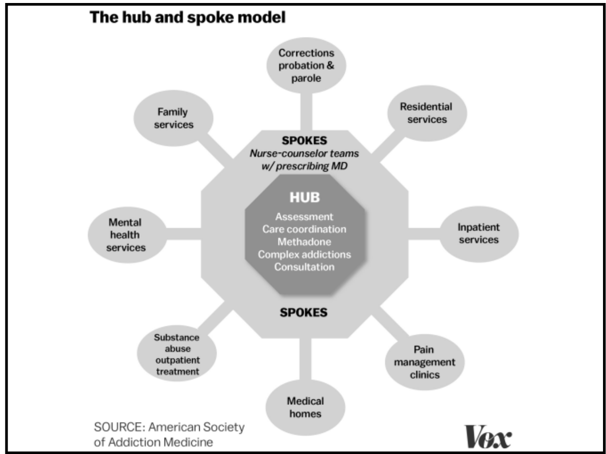
- Socio-economic
- Single parent
- Ethnic
- Matriarch/ Patriarch
- Gender
- Religion
- Treatment method
- Co-dependency
- Employment
- Domestic violence
- Living situation
- Extended family

Harm Reduction Through a Social Justice Lens

- Discharging patients from primary care practices
- Withholding pain medication for people in recovery
  - hyperalgesia
- Access to Healthcare: as affected by social determinants of health
- Stigma

The Vermont Experience

- ❑ **Hub & Spoke Model**
- ❑ **MAT Integration Learning Collaborative**
  - **Combines expert didactic lectures**
  - **Small groups of independent practice teams**
  - **Collecting & sharing outcome data and clinical experience**



Opioid Treatment Programs (OTP)

- **OTPs certified by SAMHSA**
- **Accredited by an independent, SAMHSA-approved accrediting body to dispense opioid treatment medications.**
- **Must be licensed by the state in which they operate**
- **Must register with the Drug Enforcement Administration (DEA), through a local DEA office.**

Treating Co-Morbid Conditions

- **Exhaust all non-pharmacological strategies**
  - **Lifestyle choices**
  - **Mental Health**
  - **Avoid Benzodiazepines**
  - **Constipation**

Can Acupuncture Offer Pain Relief And Reduce Opioid Use?
Vermont Funds Medicaid Study

- http://digital.vpr.net/post/can-acupuncture-offer-pain-relief-and-reduce-opioid-use-vermont-funds-medicaid-study#stream/0

Constipation

Intervention	Examples	Frequency	SIG	Notes
Exercise	Walking	Daily	30-60 mins daily	Encourage tracking/logs
Bulk-forming fiber	Metamucil psyllium, Citrucel methylcellulose	Daily	1tsp 3 x TID	Soluble (psylium) > insoluble (bran)
Stool softeners	Ducosate (colace)	Daily	100mg BID	
Hyper-osmolic agents	PEG (Miralax), Lactulose, Sorbitol	Daily	PEG: 8-32oz. QD Lact. & Sorb: 15-30mL QD / BID	
Stimulant Laxatives	Bisacodyl (Dulcolax), Anthraquinones Senna	Daily		

Anxiety & Sleep Disorders

- **Pharmacological approaches**
  Avoid Benzodiazepines
- **Mindfulness**
- **Sleep Hygiene – cultural sensitivity**
- **Exercise & Nutrition**
  caffeine, sugar
- **Acupuncture**

Drug Testing

- **Develop Resources**
  - **Identify contact at lab / art of interpretation**
  - **Identfy lab specialist**
  - **Toxicology Times – interpreting drug screens (monthly newsletter)**
  - **Drug Detection Duration**
  - **Drug Testing Algorithm**
  - **Cannot use to determine amount of ETOH use**

SDRL Laboratory

TOXICOLOGY TIMES

SDRL Laboratory

(800) 677-7995 www.sdrl.com

Volume 1, Issue 4 — *A FREE Monthly Newsletter for Substance Abuse and Opioid Treatment Programs from San Diego Reference Laboratory* — November, 2011

Technical Brief: Methadone and Methadone Metabolite (part 2)

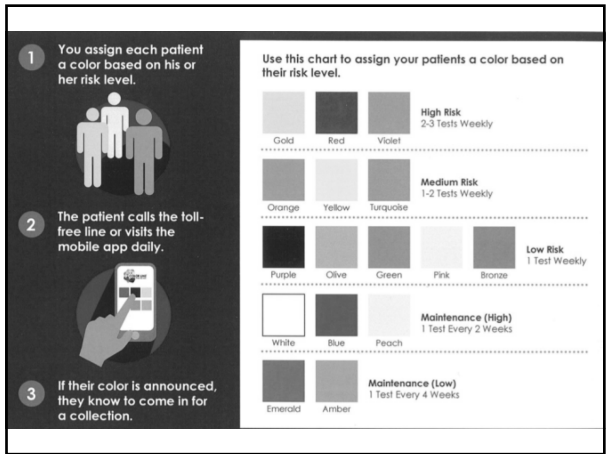
Part 1 of this Technical Brief appeared in the October, 2011 issue of *Toxicology Times.*

Urine drug testing of methadone maintenance patients usually screens for all of the drugs that a patient should not take along with the testing results for the drugs that the patient should take. Simply stated the patient should be negative for all of the drugs not prescribed, and positive for the drugs prescribed. Since methadone is the only drug consumed in most patients, this value should be positive. A positive result indicates that the value of the methadone found in the patient's sample is above the cut-off level. Usually the cut-off level is 300 ng/mL. Normal dosing of 80 to 100 mg/day will put a high level of methadone in the urine. It is expected that patients consuming a dose of 20-30 mg/ fully monitor a patient using urine values, it is necessary to determine the value of the major metabolite, EDDP, to verify that the patient had actually consumed their dose. If a patient skipped their dose, the value of methadone would be negative and the EDDP positive. The only normal condition where the patient's value for methadone is positive and EDDP (the metabolite) is negative is pregnancy; all other interpretations of a negative for methadone metabolite are non-consumption of the drug.

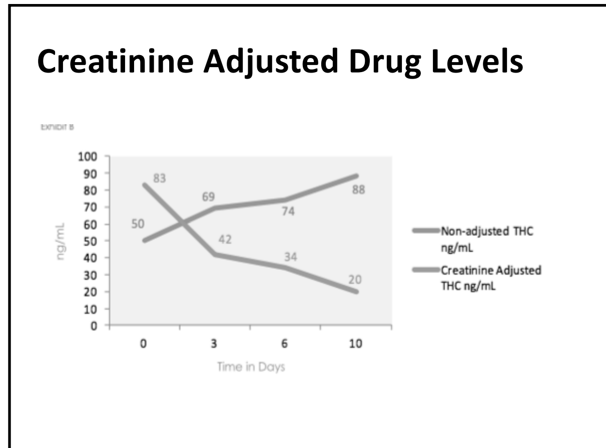
Monitoring saliva samples is a little different. The saliva drug concentrations will follow blood concentrations and will reflect these same values. Since metabolites are quickly eliminated, they are normally not found in the saliva sample or blood sample. Usually saliva samples are collection of a saliva sample.

To summarize, one can say that if a non-pregnant person consumes his/her total prescribed dose of methadone on a daily basis and if that dose is greater than 20 mg/day, then the person's drug screen will be positive for methadone and EDDP at urine levels above 300ng/ml. If a dose is skipped for a 24 hour period, the methadone will likely be negative, however the EDDP will be positive at the same urine cut-off values. If a patient attempts to alter the drug screen by the addition of methadone to the urine, the values will be negative for EDDP and positive for methadone.

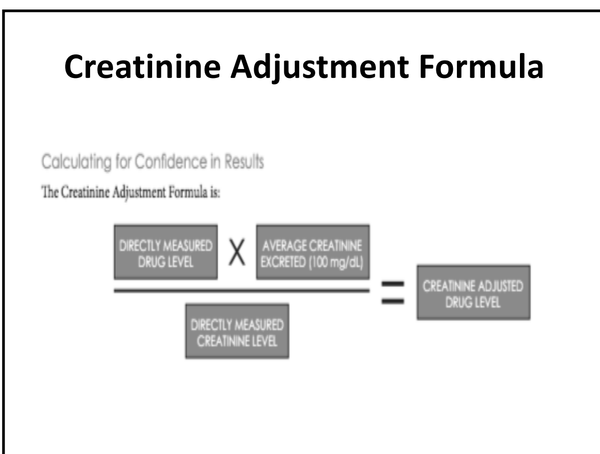
Urine drug screen values cannot be used to determine that a patient has taken and consumed their total daily dose. Taking



Creatinine Adjusted Drug Levels



Creatinine Adjustment Formula



Drug Detection Times after Ingestion

DRUG	How soon after taking a drug will there be a positive drug test:
Amphetamine, Methamphetamine	• 4 – 6 hours
Barbiturates	• 2 – 4 hours
Benzodiazepines	• 2 – 7 hours
Buprenorphine	• 1 – 6 hours
Cannabinoids/THC	• 1 – 3 hours
Carisoprodol	• 1 – 2 hours
Cocaine (Crack)	• 2 – 6 hours
Ethanol	• 1 – 12 hours
Fentanyl	• 1 – 3 hours
Gabapentin	• 2 – 4 hours
Ethanol	• 1 – 12 hours
MDMA (Ecstasy)	• 2 – 7 hours
Methadone	• 3 – 8 hours
Opiates (Including Heroin)	• 2 – 6 hours
Oxycodone	• 1 – 3 hours
PCP (Angel Dust)	• 4 – 6 hours
Pregabalin	• 2 – 4 hours
Synthetic Cannabinoids	• 1 – 3 hours

Interpreting the Results

Screen	Confirmation	Possible Interpretations
Positive	Positive	• Drug was detected above cutoff level; indicates use of drug
Negative	Negative	• Drug not ingested at all • Parent drug was taken too far in past to be detected Example: 6 – AM. (up to 24 hrs.)
Positive	Negative	• Drug detected via screen was present at a level below the reporting cutoff for confirmation • Cross-reactivity; drug detected via screen was not included in confirmation testing Example: Wellbutrin cross-reacts with the Amphetamine screen. This would cause the screen to be positive and the confirmation to be negative
Negative	Positive	• Drug detected via confirmation is not detectable via screen methods Example: Clonazepam & Lorazepam do not generate a positive screens, except at very high levels, but generate a positive confirmation at much lower levels

Pregnancy

- **Harm Reduction & Cultural Sensitivity**
  - ✓ **UPT along with UDS**
  - ✓ **Prevention - contraception**
  - ✓ **Prenatal Care – supportive & non-shaming**
    - **Doxylamine (Unisom) & B6 for nausea**

Moving Up & Down Levels of Care

Level	Prescriptions	UDTs	NP visits	Min duration	EtG (-) UDTs	Groups
High risk	daily	2/week	1-2/week	1 week	n/a	1
Entry	weekly	2/week	weekly	2 weeks	≥ 2 random	2
Intermediate	weekly	1/week	weekly	2 weeks	≥ 1 random	1
Stable (PCP)	weekly + refill	1/week	2 weeks	4 weeks	≥ 1 random	2
Extended (PCP)	2-week + refill or 28 days	1 or 2/month	monthly	n/a	n/a	n/a

Standard pathways:
New induction or inpatient: entry → intermediate → stable → primary care
From hub: intermediate → stable → primary care

Special situations:
High risk: at risk of a taper if a UDT or appointment is missed
Extended: completed stable level, ready for transition but awaiting primary care

Documentation

Subjective:

- **On time or late, and anyone who accompanied.**
- **How has the patient been since the last visit?**
- **Have there been new or continuing stressors?**
- **Were there challenging situations, and if so how did the patient manage them?**
- **Identify strategies for prevention of triggers.**
- **Look also for engagement in healthy rewarding activities.**
- **Update status and response to any interventions. Describe any counseling provided.**

Documentation

Dose Adjustments

**Substance use: Frequency and amounts for all substances used & circumstances.
Readiness to change, related counseling and motivational interviewing, and any specific steps discussed (e.g. starting nicotine replacement) can also be mentioned here.**

Craving: Determine frequency, intensity, whether for opioids, other substances, circumstances under which they occurred, and how the patient managed them.

Documentation

Past/Family/Social:

Mention changes or stability of housing, employment, or other aspects of social functioning, and document any newly obtained or updated medical history.

Plan of Care - Induction

1. First dose of bup/nx [generally 4] mg SL given at [time] (after COWS score ***).
2. Additional bup/nx [generally 4] mg SL given at [1+ hour later] (after COWS score ***).
3. Naloxone nasal spray x2 provided with counseling on use.
4. Encourage participation in group and individual counseling.
5. Test for hep B surface antigen, hep C antibody, and HIV antibody.
6. Random urine drug tests 1-2 times weekly (turquoise color line).
7. Follow up tomorrow, [next day] at [same time] to continue induction.

Plan of Care – Return Visit

1. Specify whether prescriptions were printed or phoned, including number of days and refills, and pharmacy if phoned - VPMS documentation.
2. Include any medications prescribed here in the plan, even if not changing today (e.g. “Continue fluoxetine 40 mg PO daily for anxiety).
3. If the patient committed to any specific behavioral plans (e.g. limiting to not more than X drinks in a day, going without marijuana on at least Y days, walking for 20 minutes or more at least three times during the week, etc.) mention them in the plan for future reference.

Wrap Around Services

- **RN**
  - **Coordination of care**
  - **Urine Drug Screens (UDS)**
  - **Care between prescriber appointments**
  - **telehealth**
- **Counselor**
  - **Group sessions**
  - **One-on-one counseling**

Office-Based Induction

- **We don't officially do office based induction, BUT will treat primary care pts who are dosing off the street without official "induction"**
- **Most of the pts where I do an "induction" (as above) are using less mg than they really need due to cost, & difficulty finding drugs – MANY PATIENTS ARE SELF-TREATING WITH STREET BUPE**

Tools

EHR Tools/Forms

- COWS
- CINA
- https://www.cdc.gov/drugoverdose/prescribing/clinical-tools.html
- https://www.drugabuse.gov/sites/default/files/files/ClinicalOpiateWithdrawalScale.pdf
- http://sdrl.com/index.php/toxtimes/

Calculators & APPS

- https://www.cdc.gov/drugoverdose/pdf/App_Opioid_Prescribing_Guideline-a.pdf
- https://store.samhsa.gov/product/MATx-Mobile-App-by-SAMHSA/PEP16-MATAPP

Providers Clinical Support System For MAT (PCSS)

- Buprenorphine Induction
  - https://pcssmat.org/wp-content/uploads/2014/02/PCSS-MATGuidanceBuprenorphineInduction.Casadonte.pdf
- MAT Billing
  - https://pcssmat.org/wp-content/uploads/2014/02/PCSS-MATGuidancePhysician-billingfor-office-based-treatment-of-opioiddependence.pdf

Primary Care Pearls

- Informed consent for tx and contract.
- Most pts have trauma history - important to engage in counseling that extends beyond substance use.
- Treat co-morbid mental health issues concomitently.
- Start low and increase dose. It is much harder to dial back.

Primary Care Pearls (con’t)

- Don't give in or feel guilty about not Rx'ing when pts use meds too early or some how run out --- They will figure it out.
- Believe the drug screens (at least most of the time).
- There will be relapse, BUT if relapse is common place in one pt - they need a higher level of tx.

"The opposite of addiction is not abstinence. The opposite of addiction is connection"

Johann Hari

References

- ❑ Are available by request…..