What We Wish We Would've Known

Implementing a Program for Managing Opioid Use Disorder in Pregnancy

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Objectives

- Provide a platform to cultivate critical thought and dialogue among those who care for pregnant women with Opioid Use Disorder.
- Encourage medication assistance treatment providers to care for pregnancy women and make stakeholders aware of the adversity faced in their care.
- Prevent practitioners from having to “re-create” the wheel in developing a medication assisted treatment program for pregnant women.

Overview

- Background, terminology, epidemiology, pathophysiology, barriers
- Ancillary service procurement and collaboration
- Protocol development and implementation
- Education attainment and dispersal
- Prenatal, intrapartum, and postpartum management

Terminology

Opioid Use Disorder (OUD)

- Diagnosis that has replaced opiate dependence and opiate addiction in the DSM-V.
- CHRONIC, remitting, relapsing condition.
- 11 diagnostic criteria

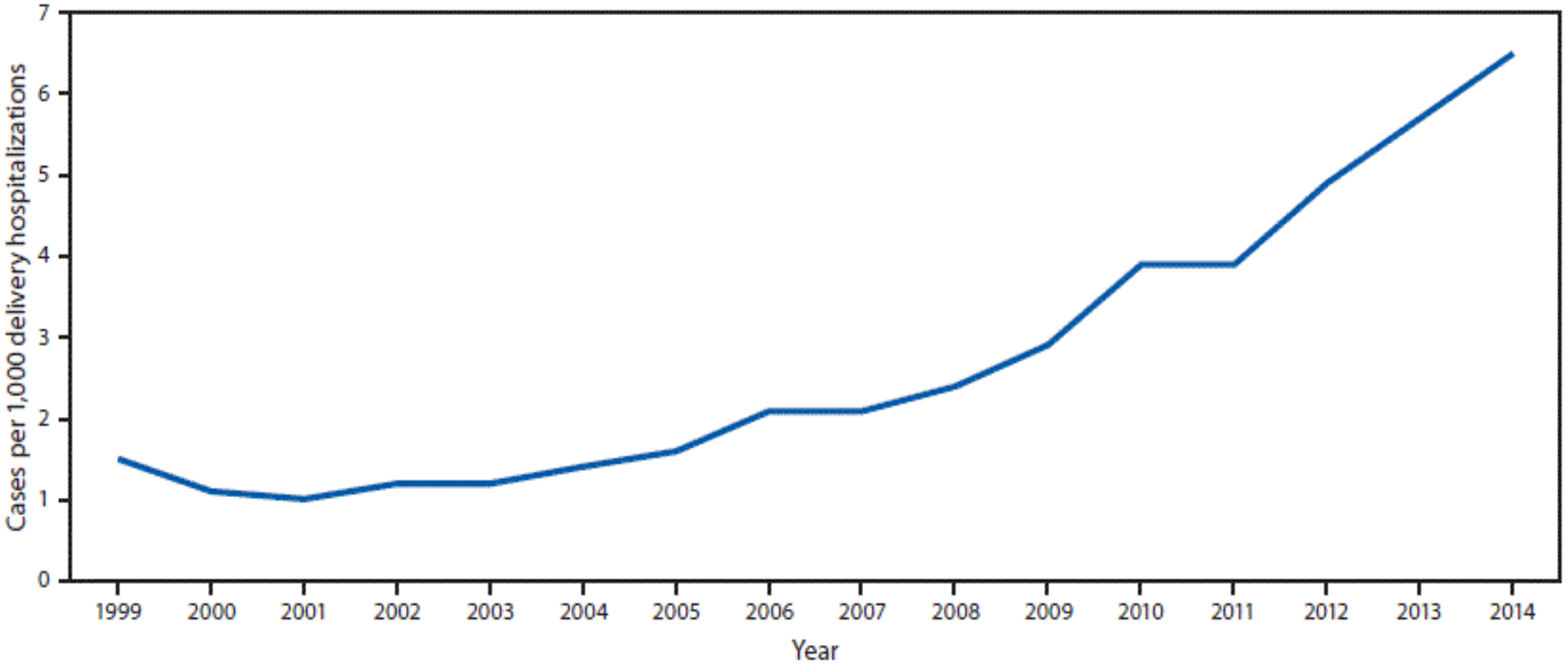
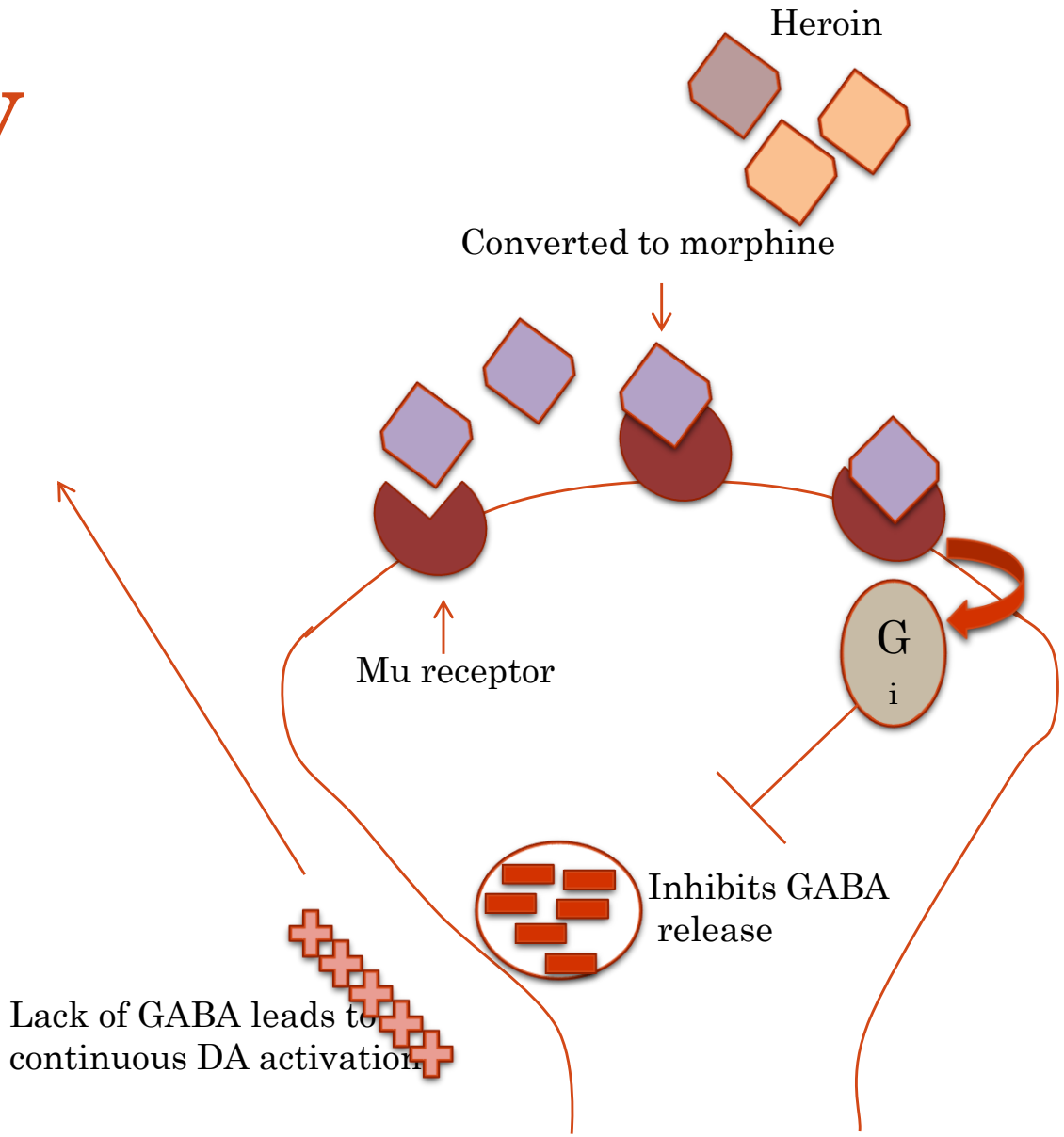


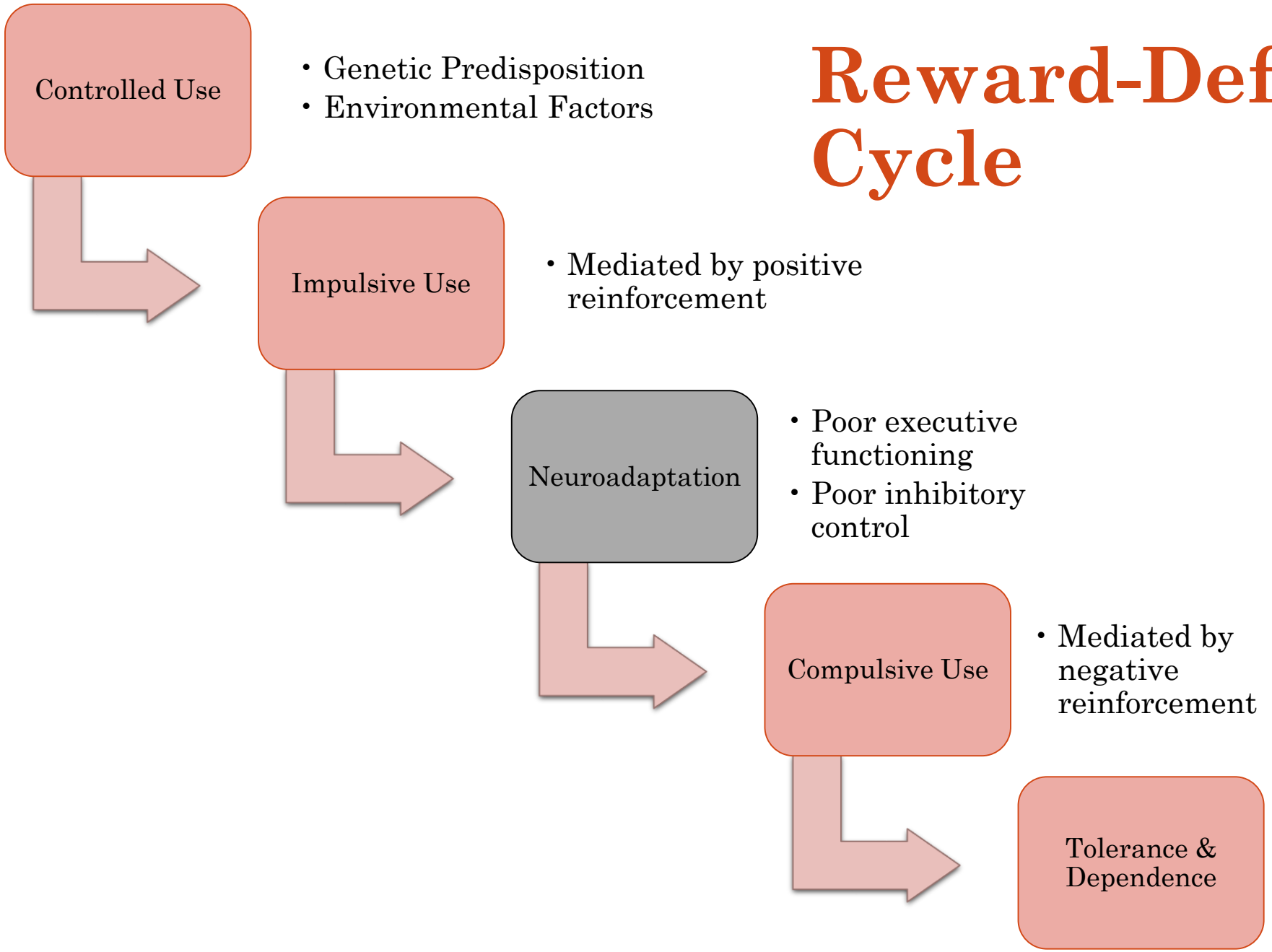
FIGURE 1. National prevalence of opioid use disorder per 1,000 delivery hospitalizations* — National Inpatient Sample (NIS),† Healthcare Cost and Utilization Project (HCUP), United States, 1999–2014

Terminology

- **Opioids**
  - Natural and synthetic substances
  - Bind endogenous mu opioid receptors of the nervous system.
  - Produce analgesic, euphoric, and CNS depressant effects.
- **Opiates**
  - Subclass of opioids derived from compounds of the opium poppy
  - Morphine, codeine



Reward-Deficit Cycle



Types of Opioids

Long-acting

- Onset of withdrawal is within 24-36h of use.
- Withdrawal may last several weeks.
- Examples: Methadone, OxyContin, Fentanyl patch

Short-acting

- Onset of withdrawal is within 4-6h of use.
- Withdrawal may last up to 72h.
- Usually subsides by 1 week
- Examples: Heroin, Tramadol, Morphine, Hydrocodone, Codeine, Oxycodone, Hydromorphone

Seeking & Engaging in Treatment

Barriers

- Stigma of addiction
  - Shame
  - Guilt
- Fear of losing custody
- Threat of incarceration and/or mandated treatment
- Pressure from others
- Lack of child care
- Lack of transportation

The Therapeutic Alliance

- Welcoming, nonjudgmental attitudes
- Keep promises
- Listen
- Be available, helpful, and positive
- Keep patient informed
- Address complaints
- Take the extra step

Find the Following:
Resources

- Mentor(s)
- A pharmacy
- A laboratory
- Facilities that meet the American Society of Addiction Medicine placement criteria –and accept pregnant women.
- Referring provider(s)
- Therapy
- Dual diagnosis providers
- Trauma counseling
- Case Management
- Social Workers
- Core nursing staff
- Nurse Practitioner or Physician's Assistant

Find the Following:

Protocols and Strategies

- Screening/assessment policy
  - Urine drug screen protocol
    - Screening frequency
    - Management of positive screens
- Induction strategy for medication assisted treatment
  - Inpatient
  - Outpatient
- Future opportunities for education

Screenings and Assessments

- Screenings
  - Verbal
  - Instrument
    - 4P's Plus and Integrated 5P's
    - Substance Use Risk Profile-Pregnancy (SURP-P)
    - Tolerance, Annoyed, Cut-down, Eye-opener (T-ACE)
    - Tolerance, Worried, Eye-opener, Amnesia, K[C]ut-down (TWEAK)
  - Toxicology screens
- Prescription Drug Monitoring Programs

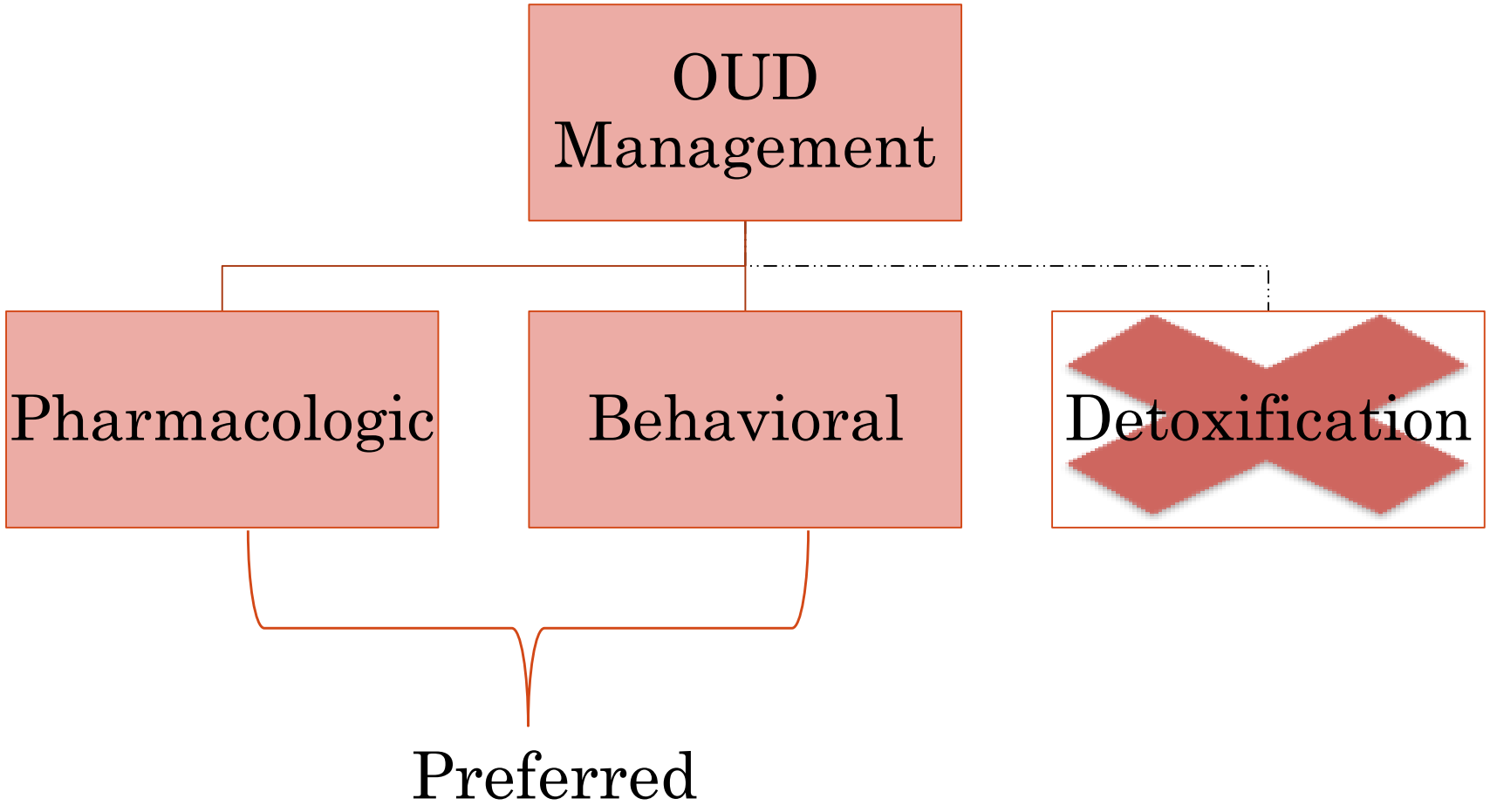
Keep in mind

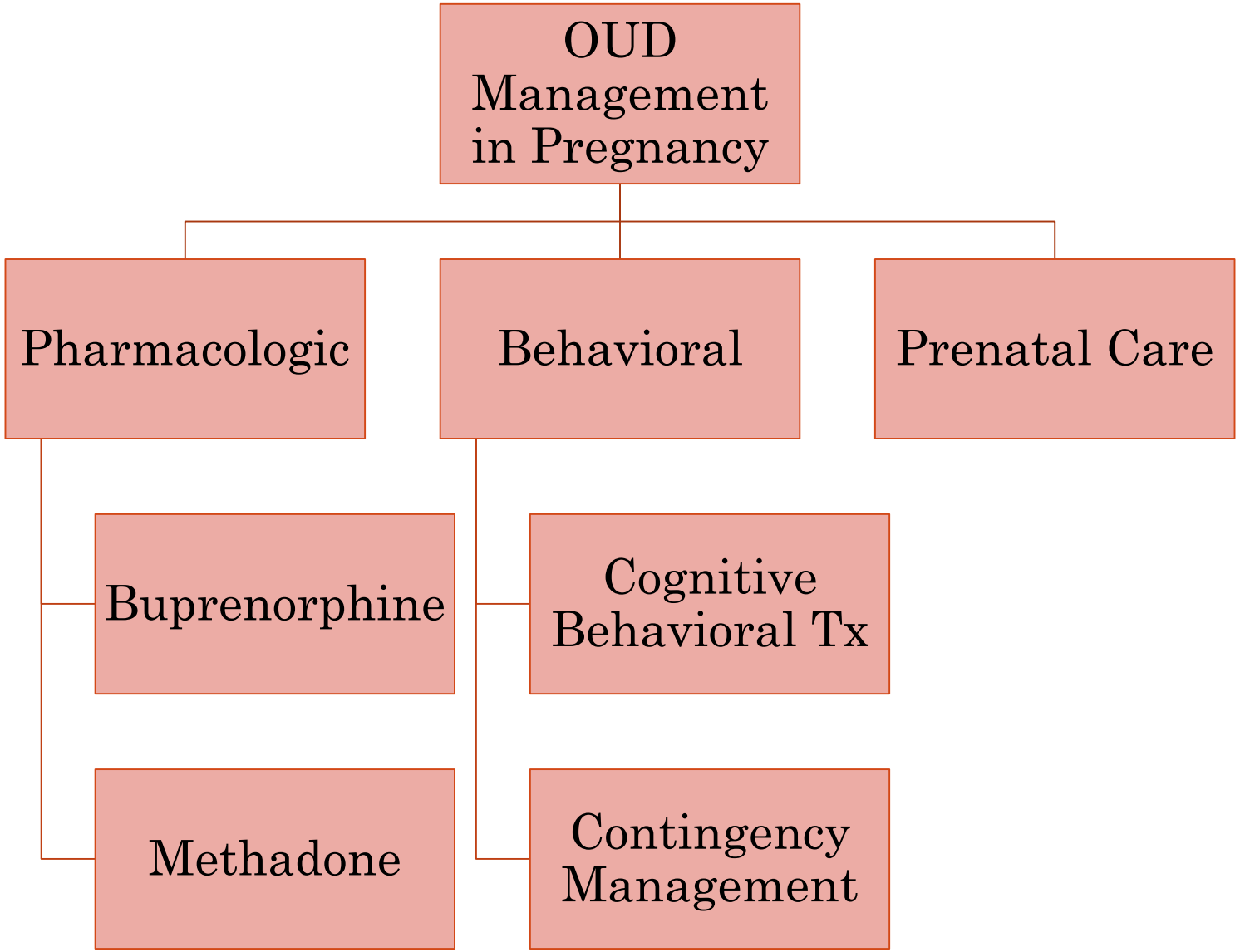
- State laws in regards to reporting substance use

Treatment Plan

- Individualized
- Educate women and their families
  - Legal,
  - Social, and
  - Medical consequences
- Medication assisted treatment initiation
- Medically supervised withdrawal

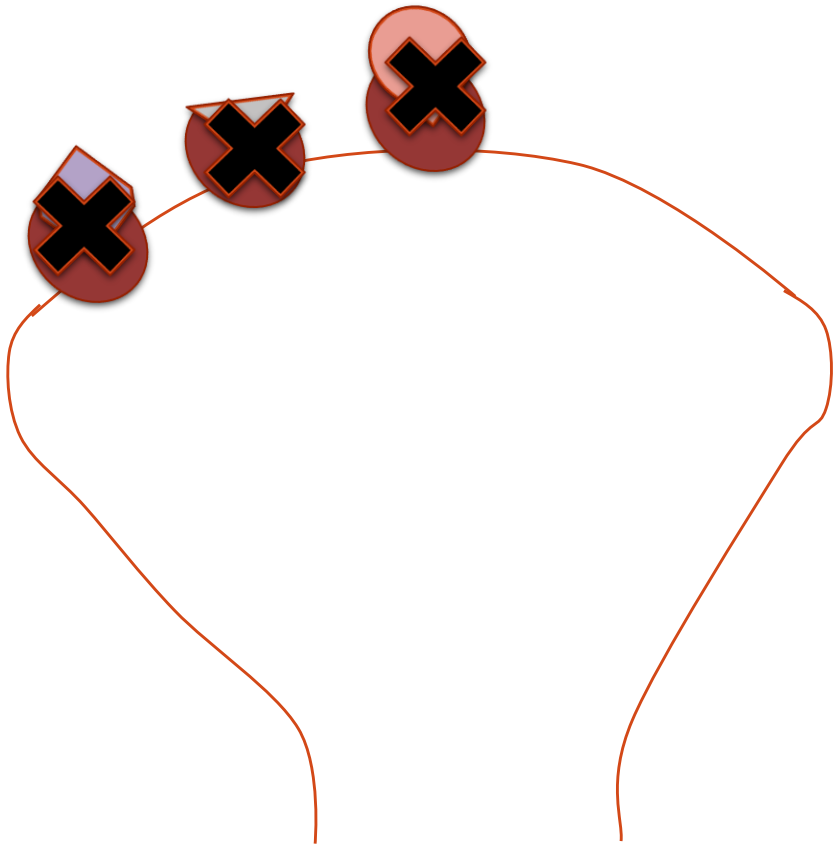
Management Options




OUD Management in Pregnancy
Pharmacologic
Behavioral
Prenatal Care
Buprenorphine
Methadone
Cognitive Behavioral Tx
Contingency Management

Mechanism of Action

- **Methadone**
  - Long-acting, synthetic, full opioid agonist that is slowly metabolized and has high fat solubility.
- **Buprenorphine**
  - Short-acting, synthetic, partial opioid agonist with high affinity, low intrinsic activity, and slow dissociation.
- **Naloxone**
  - Synthetic opioid antagonist that blocks opioid receptors, preventing opioid effects. Used to treat overdose.



Methadone

- Schedule II synthetic opioid agonist
- Utilized since the 1960s
- Opioid Treatment Program (OTP)
  - Regulated by the Substance Abuse and Mental Health Services Administration (SAMHSA)
  - Federal and state regulations
  - Unable to be prescribed in an office based clinic setting for Opioid Use Disorder
- Methadone in an OTP:
  - Lowers abuse potential
  - Lowers overdose potential
  - Less diversion risks
  - Prevents withdrawal; can be initiated before withdrawal symptoms start

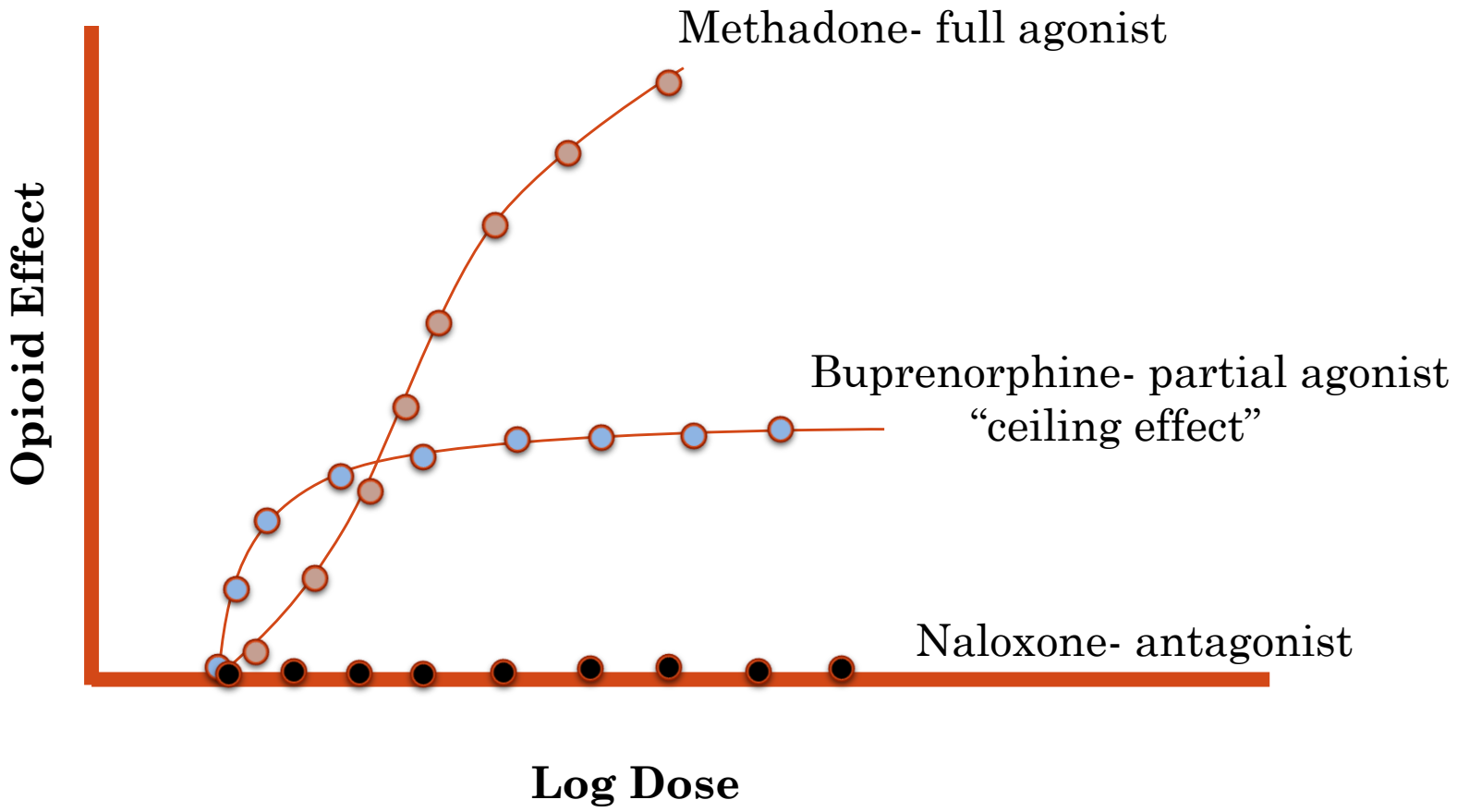
Methadone

- Considered safe in pregnancy
  - No clear associations with congenital anomalies
- Half-life of 25-52 hours
- Several drug interactions
- Side effects
  - Sedation
  - Respiratory depression
  - Prolonged QT interval
    - EKG recommended at time of initiation

Buprenorphine

- Schedule III, mixed opioid receptor agonist-antagonist
- Considered safe in pregnancy
- Office Based Opioid Treatment (OBOT)
  - Prescribers must be buprenorphine waivered
- Side effects:
  - Headache
  - Anxiety
  - Constipation
  - Perspiration
  - Fluid retention in lower extremities
  - Urinary hesitancy
  - Sleep disturbance

Terminology- Opioid Effect



Advantages

Buprenorphine

- Neonates with NAS required 89% less morphine, had a 43% shorter hospital stay, and 58% shorter duration of treatment.
- Lower risk of overdose.
- Fewer drug interactions.
- Outpatient treatment*.

Methadone

- The structure of daily visits is good for some patients.

*Providers must have a DEA waiver and comply with FDA regulations to prescribe Buprenorphine.

Disadvantages

Buprenorphine

- Risk of hepatic dysfunction.
- Lack of long-term data on infant and child effects.
- Clinically important patient dropout rate due to dissatisfaction.
- Risk of precipitated withdrawal with induction.
- Risk of diversion.

Methadone

- Requires daily visits to a licensed treatment program.
- Risk of overdose.

Initiating MAT

- When to initiate
- Inpatient vs outpatient
- Titrate to symptom relief
- Buprenorphine vs buprenorphine-naloxone

Comorbid Behavioral Health Disorders

- Depression and other psychiatric disorders are common among women with OUD
- Possible drug interactions
- Antidepressants, anticonvulsants, and anxiolytics may increase the severity of NAS

Prenatal Care for Women on MAT

- Titrate buprenorphine to achieve symptom control.
- Physiological changes during pregnancy may necessitate spilt dosing and/or higher dosages.
- Coordinate obstetric, addiction, and behavioral health care.
- Delivery at a hospital comfortable with NAS
- Duration of neonatal observation
- Social work and/or Department of Child Services involvement.

Prenatal Care for Women on MAT

- Prenatal labs
  - Hepatitis C
  - Liver function tests
  - TB skin test for high risk population (homeless, incarceration)
- Smoking cessation
- Contraception
- Breastfeeding

Intrapartum Care for Women on MAT

- Continue MAT as prescribed
- Pain control
  - Non-pharmacologic
  - Neuraxial anesthesia

AVOID Nalbuphine (Nubain) and other mixed opioid agonists-antagonists

Postpartum Care for Women on MAT

Early Postpartum

- Continue MAT
- May require higher narcotic doses for post-cesarean analgesia
- Encourage breastfeeding, unless contraindicated
- Based on reports of post cesarean overprescribing we discharge with Percocet #20

Late Postpartum

- Buprenorphine reductions should not be routine, but individualized.
- Methadone dose usually needs to be reduced due to over sedation
- Assess early and frequently for relapse and postpartum depression

Neonatal Abstinence Syndrome (NAS)

- Assessment
  - Finnegan Neonatal Abstinence Scoring System (Finnegan Scale)
  - Eat, Sleep, Console
- Screening
  - Meconium
  - Urine
  - Umbilical cord
- Management
  - Non-pharmacologic
  - Pharmacologic

Polysubstance Use

- Alcohol
- Amphetamines/methamphetamines
- Benzodiazepines
- Cannabis
- Cocaine
- Tobacco

Exhibit FS #6.1: Management Options for SUDs Other Than OUD During Pregnancy

Substance	Treatment Approaches	Comments	References
Alcohol	• Withdrawal management: Benzodiazepine (e.g., diazepam) for medication-assisted withdrawal • Pharmacotherapy: • The US Food and Drug Administration approved naltrexone, disulfiram, and acamprosate to treat alcohol use disorder. • Psychosocial treatment during and after withdrawal	• Alcohol is associated with fetal alcohol spectrum disorders and is the number one cause of preventable developmental delays in children. • In non-pregnant patients, behavioral interventions for risky/harmful alcohol use are an effective component of care. The effectiveness of these interventions has not been well studied in pregnant or postpartum women. Although pregnant women are counseled to cease drinking alcohol, little specific evidence-based guidance is available on how to manage alcohol withdrawal in pregnancy. Management should be based on alcohol withdrawal for non-pregnant women. • Alcohol withdrawal cannot be managed with behavioral therapies alone. A long-acting benzodiazepine similar to one that would be used with benzodiazepine detoxification can be used in addition to behavioral treatments. • No published studies have compared the safety or efficacy of disulfiram, acamprosate and naltrexone for alcohol use disorder in pregnant women.	Bhat & Hadley, 2015 Bhuvaneswar, Chang, Epstein, & Stern, 2007 Christensen, 2008 Whitlock, Polen, Green, & Klein, 2004 DeVido, Bogunovic & Weiss, 2015
Amphetamines/ Methamphetamines	• Behavioral interventions such as cognitive behavioral therapy, contingency management, and motivational interviewing	• There is no effective pharmacotherapy for withdrawal or maintenance of abstinence from stimulants. • Peer support is a helpful component of the treatment and recovery process	Rawson, Gonzales, & Brethen, 2002 Sherman, Sanders & Yearde, 1998
Benzodiazepines	• Gradual taper with a long-acting benzodiazepine (e.g., diazepam) with the goal of being benzodiazepine free at birth • Psychosocial treatment during dose reduction and after taper is complete	• A long-acting benzodiazepine similar to one that would be used with alcohol detoxification can be used in addition to behavioral treatments. For withdrawal, behavioral treatments alone are not sufficient. • May require long term treatment for underlying depression/ anxiety.	McElhatton, 1994

Substance	Treatment Approaches	Comments	References
Tobacco	• Nicotine replacement therapy (NRT) • Bupropion • Varenicline • Behavioral interventions such as cognitive behavioral therapy, contingency management, and especially voucher-based reinforcement • 5As (Ask, Advise, Assess, Assist, Arrange) as a brief intervention	• Data are very limited for NRT (nicotine gum, transdermal nicotine patches, nicotine nasal spray, nicotine lozenge, and nicotine inhaler), bupropion (Wellbutrin®), and varenicline (CHANTIX®) use in pregnancy. These medications should be used during pregnancy only if the benefit outweighs the risk to the fetus.	Cressman, Pupco, Kim, Koren, & Bozzo, 2012; Forinash, Pitlick, Clark, & Alstat, 2010; Minnes, Lang, & Singer, 2011 Osadchy, Kazmin, & Koren, 2009
Cannabis	• Behavioral interventions such as cognitive behavioral therapy and contingency management	• There is no known effective pharmacotherapy.	Budney, Roffman, Stephens, & Walker, 2007 Conner et al., 2016
Cocaine	• Behavioral interventions such as cognitive behavioral therapy, contingency management, and motivational interviewing	• There is no known effective pharmacotherapy. • Peer support is a helpful component of the treatment and recovery process	Farkas & Parran, 1993 Sherman, Sanders & Yearde, 1998

Conclusion

- Screen all pregnant women for
  - Substance use disorders
  - Co-occurring mental health disorders
  - Infectious or sexually transmitted infections
  - Physical and sexual trauma or violence
- Refer women to OB providers who are experienced in and knowledgeable of opioid use disorder in pregnancy.
- Medication assisted treatment is the recommended treatment for opioid use disorder in pregnancy.

What can I do now?

- Explore the website of Substance Abuse and Mental Health Services Administration (SAMHSA).
- Join the American Society of Addiction Medicine
- Attend local and national meetings/conferences
- Learn about your state regulations for mandatory reporting of positive drug screens for pregnant and parenting women.
- Complete buprenorphine waiver training
- Seek out local resources with other providers to create a referral network.

Contact

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References

American Society of Addiction Medicine. Consensus statement: Appropriate use of drug testing in clinical addiction medicine. April 5, 2017.

American Society of Addiction Medicine (2017). Drug Testing Appropriateness Document. Retrieved from https://www.asam.org/docs/default-source/quality-science/asam-drug-testing-appropriateness-document-draft4779199472bc604ca5b7ff000030b21a.pdf?sfvrsn=2

Bateman BT, et al (2017). Patterns of opioid prescription and use after cesarean delivery. Obstet & Gynecol;130:29-35.

Botticelli, MP, Koh, HK. Changing the Language of Addiction. JAMA October 4, 2016 Volume 316, Number 13

Guttmacher Institute (2017). Substance Use During Pregnancy. Retrieved from https://www.guttmacher. org/state-policy/explore/substance-use-during-pregnancy

Haight SC, Ko JY, Tong VT, Bohm MK, Callaghan WM. Opioid Use Disorder Documented at Delivery Hospitalization — United States, 1999–2014. MMWR Morb Mortal Wkly Rep 2018;67:845–849.

Indiana General Assembly (2017). Senate Bill Act. 186. Retrieved from https://iga.in.gov/legislative/2016/bills/senate/186#document-9e4e1dbb

Jones HE, Kaltenbach K. Treating women with substance use disorders during pregnancy: A comprehensive approach to caring for mother and child. Oxford University Press; 2013.

Opioid Use Disorder in Pregnancy. ACOG Committee Opinion Number 711, August 2017.

Osmundson SS, et al (2017). Post discharge opioid use after cesarean delivery. Obstet & Gynecol;130:36-41.

Rastegar D, Fingerhood M (2016). “Screening and Brief Interventions.” ASAM Handbook of Addiction Medicine.

Substance Abuse and Mental Health Services Administration (SAMHSA). (2009). *Clinical Guidance for Treating Pregnant and Parenting Women with Opioid Use Disorder and Their Infants.* HHS Publication No. (SMA) 18-5054. Rockville, MD: SAMHSA. Retrieved from https://store.samhsa.gov/system/files/sma18-5054.pdf