Opioid Dependency in Pregnancy

SCBOI
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Disclosure

• I have nothing to disclose.

• I may discuss the off-label use of sublingual buprenorphine/naloxone for treatment of pain.
Objectives

1. Participants will be able to identify why so many women of child-bearing age are addicted to opioids.

2. Participants will understand why medication assisted treatment is the standard of care.

3. Participants will understand the goals of MAT during and following pregnancy.
Opioid facts

The United States has 4.6% of the world’s population.
- We use 80% of the world’s opioids!\(^1\)
- 83% of the world’s population has essentially no access to any opioids.\(^2\)
Opioid increase

Drug distribution through the pharmaceutical supply chain was the equivalent of 96 mg of morphine per person in 1997

and approximately 700 mg per person in 2007, an increase of >600%.²
Women of childbearing age

• 27.7% of insured and 39.4% of Medicaid women of reproductive age (15-44) getting an rx for opioids in past year. 2008-2012 (Ailes et al)
  • In the South had the highest rates of opioid prescribing.

• Pregnant women with Medicaid 2000-2007: 21.6% filled an opioid prescription during pregnancy (Desai et al).


- Opioid Sales KG/10,000
- Opioid Deaths/100,000
- Opioid Treatment Admissions/10,000

National Vital Statistics System, DEA’s Automation of Reports and Consolidated Orders System, SAMHSA’s TEDS
Drug Poisoning Deaths Involving Opioid Analgesics and Heroin: United States, 1999–2014

Sources: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention
Poppy plant
Pain

An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.

International Association for the Treatment of Pain
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Acute pain: Pain < 3 months
Chronic pain: Pain > 3 months
Opioids are different

Dopamine

+ 

Opioid receptor
Dopamine
Opioid receptors

Enable us to achieve a goal (short term).\textsuperscript{23,24}

- Decrease pain (minimal effect).
- Increase motivation.
- Increase confidence.
- Increase pleasure in current activity. Dopamine.
- Reduce depression and anxiety.
- Increase “warmth-liking”.\textsuperscript{25}
  - Liking warm things.
  - Interpersonal bonding.
Primary purpose:

**Dopamine** – Our primary reward system. This is what we live for.

**Endorphins and opioid receptors** – These maximize our ability to achieve the reward.
Treatment of Opioid Use Disorder

Detox and abstinence
Methadone
Buprenorphine (Suboxone®)
Naltrexone injection (Vivitrol®)
Treatment of Opioid Use Disorder

Detox and abstinence: Success rate ≈ 10%
Methadone: Success rate ≈ 60%
Buprenorphine (Suboxone®) : Success rate ≈ 60%
Naltrexone injection (Vivitrol®) : Success rate ≈ 10%
England study

• Compared to those on MAT (buprenorphine or methadone):
  • Those in residential treatment were 50% more likely to die.
    • In the first 28 days after discharge are seven times more likely to die.
  • Those getting counseling only were 100% more likely to die.
  • Those in the first 28 days off of MAT: 3.5 times more likely to die.

The safest treatment for OUD is MAT without tapering off!

OUD vs Diabetes

Chronic diseases

Structural/chemical defect in the body

Caused by combination of behavior and genetics

Most people need medication

No cure (control of the disease is the goal)
Addiction is a disease!
Not a moral failing!
Understanding addiction

• Brain changes:
  • Increase in reward as the primary goal
  • Decrease in rational decision making
  • Decrease dopamine
  • Decrease serotonin
  • Decrease endorphins
  • Decrease opioid receptor

• Addiction is a primary brain disease

• Mortality rate 1% per year (equivalent to untreated atrial fibrillation)
  • 2% per year for those injecting or using heroin
Treatment in Pregnancy

ACOG (2016):

“The current standard of care for pregnant women with opioid dependence is referral for opioid-assisted therapy with methadone, but emerging evidence suggests that buprenorphine also should be considered. Medically supervised tapered doses of opioids during pregnancy often result in relapse to former use. Abrupt discontinuation of opioids in an opioid-dependent pregnant woman can result in preterm labor, fetal distress, or fetal demise.”

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MOTHER study

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Neonatal Abstinence Syndrome after Methadone or Buprenorphine Exposure

Hendrée E. Jones, Ph.D., Karol Kaltenbach, Ph.D., Sarah H. Heil, Ph.D., Susan M. Stine, M.D., Ph.D., Mara G. Coyle, M.D., Amelia M. Arria, Ph.D., Kevin E. O’Grady, Ph.D., Peter Selby, M.B., B.S., Peter R. Martin, M.D., and Gabriele Fischer, M.D.

N ENGL J MED 363;24   NEJM.ORG   DECEMBER 9, 2010
MOTHER study

• Babies born to moms on buprenorphine c/w those born to moms on methadone:
  • Less frequent NAS
    • Methadone: 57%
    • Buprenorphine: 47%
  • When NAS occurred:
    • Less severe
    • Shorter duration

• No difference in pregnancy outcomes.
Detoxification from opiate drugs during pregnancy.

- 5.5 years. 301 pregnant women with OUD.
- “No adverse fetal outcomes”
- 31% of babies had NAS
- 36% of women relapsed (before delivery)
- Did they f/u on everyone or just those who delivered?
Treatment in Pregnancy

The Effect of Methadone Dose Regimen on Neonatal Abstinence Syndrome

John J. McCarthy, MD, Martin H. Leamon, MD, Neil H. Willits, PhD, and Ruth Salo, PhD

*J Addict Med* • Volume 9, Number 2, March/April 2015

- 62 women. 2008-2013
- Methadone dosed bid or tid.
- 29% of babies tx for NAS
- 92% of babies tested neg for drugs at delivery
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Goals of treating the opioid dependent pregnant woman:

1. Healthy mom
2. Healthy baby
3. Healthy family
Final thoughts

• Our best opportunity to reduce OUD in pregnant women and NAS is prevention!
  • Opioids should be contraindicated in reproductive age women.

• Women that have OUD and are pregnant need treatment.
  • Buprenorphine may be best.
  • Split dose methadone is also an option.
  • I believe the evidence supports that detox and abstinence for pregnant women will have an adverse effect on the family long-term.

• Obstetricians who are caring for women with OUD should be prescribing buprenorphine.
“To write prescriptions is easy, but to come to an understanding with people is hard.”

-- Franz Kafka, “A Country Doctor”
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