Opioid Addiction in Pregnancy

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Disclosure Statement

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Minnesota Department of Human Services

DAANES Report 2012
(Drug and Alcohol Abuse Normative Evaluation System)

Data Refers to Treatment ADMISSIONS

Slides by
Rick Moldenhauer, MS, LADC, ICADC, LPPS
Planner Principle State
State Opioid Treatment Authority
Heroin vs. Other Opiate Admission 1998-2012

Number of admissions/yr

Source: DAANES, PMQI, MN DHS 2013
Other Opiate Admission by Race 1998-2012

Source: DAANES, PMQI, MN DHS 2013
Other Opiate Admission by Race, Not Counting White, 1998-2012

Source: DAANES, PMQI, MN DHS 2013
Heroin Admission by Race 1998-2012

Source: DAANES, PMQI, MN DHS 2013
Heroin Admission by Race, Not Counting White, 1998-2012

Source: DAANES, PMQI, MN DHS 2013
Increases by Percent, 1998-2011 for Heroin and Other Opiates

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<thead>
<tr>
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<th>“Other Opiates”</th>
<th>Heroin</th>
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<tbody>
<tr>
<td>All:</td>
<td>983.8% increase</td>
<td>289.2% increase</td>
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<tr>
<td>Native American:</td>
<td>3695.2% increase</td>
<td>2377.7% increase</td>
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Source: DAANES, PMQI, MN DHS 2012
Epidemic?
Chemical Dependency Treatment Rates, Heroin, for Minnesota Residents

Source: DAANES, PMQI, MN DHS 2012
Heroin vs. Other Opiate Admission for Pregnant Women, 1998-2012

Source: DAANES, PMQI, MN DHS 2013
Opioid Addiction in Pregnancy

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Disclaimer and Disclosure

- I am not an addiction specialist.
- Information provided today is combination of other’s research and my clinical experience.
- I have no financial gains to disclose.
Some of the things we will cover today...

- Discuss opioid addiction trends in Minnesota.
- Discuss the identification of opioid addicted pregnant patients.
- Discuss co-morbidities associated with opioid addiction.
- Discuss safe care of the pregnant opioid addict.
Opiate vs Opioid

- opiate - narcotic analgesic derived from a opium poppy (natural)
- opioid - narcotic analgesic that is at least part synthetic, not found in nature
Opioids

All compounds related to opium – originates in the poppy plant.

- Natural
  - Morphine and opium
- Semi-synthetic
  - Hydrocodone (Vicodin), oxycodone (Percocet) and heroin
- Fully Synthetic
  - Methadone, fentanyl, and buprenorphine (Subutex)
Things Known to be True

- Opioids are a highly effective pain medication.
- Clinical use of opioids is considered to pose minimal risk to mother or fetus.
- Pregnancy Class B
Why are we talking about this today?

- Opioid abuse and dependence is on the rise both locally and nationally.
- The new “Gateway.”
- Abuse and addiction of these drugs are a major threat to the well-being of pregnant women and children - both unborn and born.
- The care and treatment of pregnant opioid patients is counter-intuitive to most patients and clinicians.
Dependence vs Addiction

**Dependence**
- Physical withdrawal symptoms
- Larger amounts needed to obtain same result

**Addiction**
- Physical withdrawal symptoms
- Drug may be obtained legally or illegally (Often combination)
- Larger amounts needed to obtain same result
- Inability to cut-down
- Increase time used to obtain drug
- Risk taking behavior to obtain drug
- Use despite negative impact on own well-being
- Give up other important activities
Risk Factors Lending to Opioid Abuse

- 50-50 environment and genetics

Environmental
- Availability and peer use
- Sexual partner use
- History of victimization
- Physical and sexual abuse/trauma
Characteristics of the Pregnant Addict

- Avoidance of discomfort is primary.
- The addiction/dependence chooses.
- Risk to fetus often minimized.
- Fear of becoming more powerless.
- Threat of being “discovered” is real.
- Threat of Child Protection is real.
Rates of Opioid Abuse in Pregnancy

- **2005 study**
  - 15 – 44 years old
  - Community dwelling (not in hospital, incarcerated, homeless)
  - Primary opioid of choice – pills
- Women self reported opioid abuse in 1% of pregnancies
- Newborn stool (meconium) studies found opioids in 8.7% of newborns
Heroin vs. Other Opiate Admission for Pregnant Women, 1998-2012

Number of admissions/yr

Source: DAANES, PMQI, MN DHS 2013
Imagine the Likely Rates…

- Consider the women who are homeless…
- Consider the women who don’t get prenatal care…

What I’m seeing in clinic…

…roughly 25%-50% of pregnant patients admit to being addicted to opioids.
Risk of Opioid Addiction in Pregnancy

What is the actual risk of opioid addiction in pregnancy?

Not an easy answer...
Comorbidity

existing simultaneously with and usually independently of another medical condition

(http://www.merriam-webster.com)
Comorbidities and Confounding Factors

- 90% smoke cigarettes
- 10% use cocaine
- 10-25% have psychiatric disorders
- High rates of poor nutrition
- High rates of Complex Social problems
Effects of Comorbidities

- Increased risk of spontaneous abortion
  - cigarette smoking and complex social issues
- Increased risk of still birth
  - cigarette smoking, cocaine and complex social issues
- Increased risk of preterm birth
  - cigarette smoking, cocaine, poor nutrition and complex social issues
- Increased risk of low birth weight
  - cigarette smoking, psychiatric disorders, poor nutrition and complex social issues
- Increased risk of “Sudden Infant Death Syndrome”
  - cigarette smoking
Moral of the story

It is extremely difficult to identify true risks of opioid abuse in pregnancy and the majority of negative outcomes may be from use of other drugs and social impacts.

*More comorbidities means higher risk of negative outcomes.*
True Danger of Opioids in Pregnancy?
True Danger of Opioids in Pregnancy?

Withdrawal
The Realization

What I’m seeing in clinic…

Most women don’t know the extent of their addiction they until they become pregnant…
Symptoms of Pregnancy

- Irritability
- Nausea and/or Vomiting
- Low back pain
- Stuffy nose
- Bowel changes
- Fatigue/Tired
- Insomnia
- Breast Pain
Symptoms of Withdrawal

Irritability
Nausea and/or Vomiting
Muscle aches
Watery Eyes and/or Runny nose
Diarrhea
Yawning
Insomnia
Fever
Goosebumps
Sweating

*Miserable, but rarely life threatening to an adult.*
Withdrawal Symptoms or Discomforts of Pregnancy?

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Dangers of Continued Abuse

Usual use pattern

» Use a lot, stop, withdrawal, use again, etc…

Intra-Uterine…

» Causes repeated cycles of fetal intoxication and withdrawal
» Creates unstable environment for fetus and effects efficacy of placental function

*Micro-Withdrawals*
Dangers of Withdrawal to the Fetus

Fetal hypoxia leading to increased rates of...

- Spontaneous abortion
- Placental insufficiency
- Hypertensive emergencies
- Pre-term labor and birth
- Poor fetal growth
- **Fetal death**
Neonatal Abstinence Syndrome

» Nervous System Excitability
  » Seizures, tremors, hypertonia, poor sleep, high pitched cry

» Autonomic Nervous System
  » Sweating, sneezing, tearing, hyperthermia

» GI System
  » Feeding difficulty/uncoordinated, vomiting, diarrhea

» Respiratory Distress
  » Increased secretions, increased respiratory rate, apnea

*Can be deadly if not recognized and treated*
Interventions

- Narcan
- Suboxone/Subutex
- Methadone Assisted Withdrawal
- Methadone Maintenance
- Psychosocial Support
Narcan
(naloxone)

- CONTRAINDIATED in opioid dependent pregnant women.
  - Unless maternal overdose/lifesaving measure.
- Reverses/blocks opioids.
- Puts someone into immediate withdrawal state.
- Can be dangerous for the newborn if maternal use not identified.
Suboxone/Subutex

(buprenorphine)

- Mixed agonist-antagonist opioid receptor modulator
- Can decrease in Neonatal Abstinence Syndrome
- Fairly good results with non-pregnant patients
- Current model is good at curbing withdrawal, but does little to curb addiction behavior
- Leading us back to Neonatal Abstinence Syndrome and the co-morbidities.
- More study and work needed around this treatment.
Methadone

- FDA approved in 1972 for treatment of opioid dependence
- Goal: replaces illicit drug use, avoids withdrawal, and eliminates drug craving
- Methadone lasts 27 hours in system, allowing for once a day treatment
  - Avoids the micro-withdrawal
- Steady and known supply of drug/medication decreases risk-taking behavior to obtain drug
- Increases maternal safety
Methadone Assisted Detox

Intent

- Goal is to get women off of opioids.
- Transition from illicit opioids to methadone and slowly wean off.
- No opioids means no Neonatal Abstinence Syndrome.
Methadone Assisted Detox

Reality

- Increase in fetal deaths
- 40%-100% relapse rate
- Twice the rate of + drug screens at time of delivery*
- Six fewer prenatal care appointments*
- NO difference in Neonatal Abstinence Syndrome

*than recommended model
Methadone Maintenance

- Current Medically Recommended Option
- Should be considered medical management to avoid fetal and maternal injury
- These women ARE following the best treatment modality available and following ACOG recommended treatment recommendations.
Effects on the Newborn

Neonatal Abstinence Syndrome

- Effects 70% of these babies
  - Not dose dependent (below 100mg or so)
  - Treated with comfort measures and medication
  - Up to 60% of these babies require medication
  - Onset at 24-72 hours of life and can last 6 days to 8 weeks
  - Supportive cares for baby and parent(s)
  - Mixed reports if breastfeeding can reduce these symptoms.
- Important in maternal-child bonding. Minute amounts of methadone found in breast milk.
Child Development After Methadone Maintenance

- Mental and motor function within normal range
- Possible fine motor skills problems
- Same rates as seen in un-treated mothers

*Child development highly effected by environment.*

*Social support critical.*
Psychosocial Support

- Intervention on all illicit drug use
- Assistance with social problems and connection to community support
- Assistance with medical and psychological problems
- Connection to supportive abstinence network
- Encouragement to seek and connection with prenatal care
- Culturally appropriate support
Benefits of Methadone Maintenance and Psychosocial Support

- Up to three times less mother’s illicit opioid use
  - Decreasing those co-morbidities
  - One- to two-thirds of women do continue to abuse drugs or alcohol
- Increases prenatal care
  - Better newborn outcomes
- Up to three times less risk of low birth weight
- Mother more likely to maintain custody of child
Successful Methadone Maintenance

Multi-Disciplinary Team…

- Methadone Clinic Team
- Social Workers and Counselors
- Community Support Networks and Services
- Obstetrics Providers
Motivating Women to Seek Help

- Be respectful of their courage.
- Offer them tools to make the decisions they need to vs. telling them what they need to do.
- Give them accurate information. Or get them to someone who can.
- Engage their family - the power of the ultrasound.
- Establish connection with/refer them to services that specialize in addiction in pregnancy.
- Reframe perceptions of social support systems.
  - Project Child
    - *Criminal prosecution has NOT decreased drug use in pregnant women.*
Where We Fall Down

Post Partum support and care
Access and support to outlying/non-metro areas
The non-addicted opioid dependent patient.

This epidemic is growing at a rate that medical and societal systems can not match pace to.
Having Our Own Courage

- Prepare yourself to ask the difficult questions.
- Prepare yourself for the difficult answers.
- Check your own biases and agendas.
- Understand an addicted woman may have different motivators than you.
- Know the resources available in your community.
  - 911 - 211
- Know your limits.
Opioid abuse and dependence pose multi-faceted threat to pregnant women and unborn children.

The greatest opioid-linked risk to fetal well-being is withdrawal.

Methadone maintenance is the preferred method of decreasing withdrawal risks to fetuses.

A multidisciplinary approach to intervention is best method of supporting pregnant women’s abstinence from illicit drugs and decreasing co-morbidities.
Division of Indian Works Healthy Babies Healthy Futures.

It is 38 minutes and the first portion is community background information. DEA agent comes in at 19 minutes and my portion starts at about 21 minutes:

http://www.youtube.com/watch?feature=player_embedded&v=14O8Wah3CeM&t=17

Front page article in The Circle:

http://thecirclenews.org/index.php?option=com_content&task=view&id=834

Here is a write up from MOFAS (similar article was also featured on the front page of The Circle Newspaper):

http://www.mofas.org/2013/07/division-of-indian-works-new-documentary-on-addictionpregnancy/

A radio interview on KFAI:

http://kfai.org/node/38795

Recent article on MinnPost:

Citations

- Substance use in pregnancy; UpToDate; 2012.
- Opioid Abuse, Dependence and Addiction in Pregnancy, Committee Opinion; ACOG; 2012.
- Methadone maintenance therapy during pregnancy; UpToDate; 2012.
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- Cocaine; Drugs in Pregnancy and Lactation; 2010; 319-327.
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