Medication Assisted Treatment and Pregnancy
Goals and Objectives

**Goals:**
- To locate what’s the best practice for treating pregnant women dependent to opiates
- To locate what’s effective practice for treating newborns dependant to opiates
- Educate clinicians on appropriate and effective treatment for patients served

**Objectives**
- The effectiveness of methadone with opiate dependent women who are pregnant
- Identify and understand neonatal abstinence syndrome
- The application of the Finnegan scoring system and its effectiveness in the treatment of NAS
World Health Organization and Methadone

- **Medicine for pain and palliative care**

- There are four Opioid Analgesics
  - Codeine
  - Fentanyl
  - Morphine
  - Methadone
Heroin and Prescription Drug Use

- Heroin overdose in 2010 was 8% in 2015 it increased to 25%
- Prescription opioid use increased by 41%
- In 2010 5.1 Million Individuals reported nonmedical prescription abuse
- 71% Gain their prescriptions from, friends or family member and brought or taken without permission
4.4% of pregnant women are using illicit drugs.

1% of pregnant women in the US are found using illicit opioids.

Heroin use during pregnancy can lead to:

- Fetal Death
- Infant Morbidity
- Retardation
- Placental Insufficiency
- Preeclampsia
- Premature Rupture of Membranes
Identifying Pregnant Women in MAT

- Pregnancy Testing (Admission and while engaged in treatment)
- Sharing Results
- Be in tune with your judgements (PAUSE)
- Locating Prenatal Care
- Methadone Friendly OB/GYN
Patient Education

- Mommy’s Emotional State
- Reassure mom her baby is safe
- Counselor Education and Training
- Medical Director
- Policy Procedure
Medication Increase and Decrease

- Methadone and Baby
- Methadone and Mommy
- Medical Staff (The Clinic and the OB/GYN)
- Communication about addiction and treatment
- Counseling
- Split Dosing (Timing is everything)
Trimesters

- 1st Trimester – Education, Morning Sickness (Zofran) and Reassurance
- 2nd Trimester – Dose Stability and Prenatal Follow Up (High risk pregnancy) - Ultrasound
- 3rd Trimester – Due Date, Preterm Infants, C Section or Natural Birth,
Preparing for Delivery

- Takeout Medication
- Hospital Admission
- Contact with Nursing Staff
- MAT Education
What is NAS

- NAS – Neonatal Abstinence Syndrome
- Neonatal withdrawal after exposure to certain drugs illicit or prescription
- Newborns reframing from a group of symptoms that consistently occur together or a combination of symptoms (Chills, mild tremors, server crying, sleeping pattern, losses stools, feeding patterns, nasal sniffing)
- Morphine or Methadone is the standard of care in the US for opioid dependent women
- Buprenorphine is being use as an alternative but is not approved in the US
- Presenting symptoms occurs with the first 48 to 72 hours after birth. 55% to 95% of infants are exposed
The Finnegan Neonatal Abstinence Scoring System

31 item scale design to quantify severity of NAS and to begin NAS treatment

Begins scoring within 2 hours of life (Baseline Score)

Administer in 4 hour intervals

NAS symptoms are weighed numerically scoring 1 – 5

Infants scoring 8 or greater will receive pharmacological therapy

Very comprehensive but too complex for routine use
Scoring Process

- Baby born at 2pm
- Scoring is recorded @4pm or admissions to the nursery (Baseline Score)
- 4 hour intervals @8pm or 2 hours @6pm based on severity of symptoms
- Scoring 8 or greater
Nonpharmacologic Therapies

- The Goal: Minimize Stimulation
- Swaddling
- Skin to skin
- Calorically dense formulas
- Breastfeeding
- Minimal sensory or environmental stimulation
Breastfeeding in MAT is traditionally low among women

In 2011 the US Surgeon General and DHHS released, "A Call to Action to Support Breastfeeding".

Methadone is passed on to neonates through breastmilk

Small amount <0.2 mg/d no change in neonatal serum methadone

"The Calming Effect"
Medications Used

- 20% of providers use methadone
- 63% Use other opioids
- Initial therapy use alcohol free oral morphine sulfate 0.4 mg/mL or preparation morphine hydrochloride 0.2 mg/mL
- Diluted Tincture of opium (Contains a small amount of alcohol)
- Paregoric 1st agent used but decided due to toxic side effects
- Diazepam no longer used due to impaired neonatal excretion and late onset seizures
Three reason medication is administered in the hospital

1. Respiratory depression requires inpatient monitoring
2. Relapse Prevention
3. Frequent assessment by trained providers for either over or under medicate
4. Length of stay baby is released when mom is released or up to 21 days

Methadone Half Life in newborns 3.8 to 62 hours but it's difficult to gauge in newborns
Postpartum

- Depression and Anxiety
- Baby Assessment
- Supporting Mommy
- DFACS
Benfits or Purpose for Treatment

- To Prevent Opioid Withdrawal Signs and Symptoms
- To Provide a Safe and Comfortable Induction/Education
- Block the Euphoric Effects of Illicit Opioids
- Eliminating the Fetal Exposure to Opioids
Talking to Family and Loved Ones

- Educate – On Methadone
- Educate – On Pregnancy and Methadone
- Educate – On Our Baby
- Educate – On What to expect
The Criminal Justice System and Treatment

- Inmates rights
- Investigation vs Medical
- Confirmation of a positive drug screen
- Coordination of Care
- Ending treatment
Research

The Opioid Exposed Newborn: Assessment and Pharmacologic Management
Lauren M. Jansson, Martha Velez, Cheryl Harrow
J Opioid Manag. Author manuscript; available in PMC 2009 August 19.

Neonatal Abstinence Syndrome: Influence of a Combined Inpatient/Outpatient Methadone Treatment Regimen on the Average Length of Stay of a Medicaid NICU Population
Jerry Lee, Sonia Hulman, Michael Musci, Jr., Ellen Stang

North Carolina Pregnancy & Opioid Exposure Project: Neonatal Abstinence Syndrome (NAS)2017
Identifying Neonatal Abstinence Syndrome (NAS) and Treatment Guidelines University of Iowa Children's Hospital -2/11/13

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Pharmacologic Management of the Opioid Neonatal Abstinence Syndrome

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The Opioid dependent mother and newborn dyad: non-pharmacologic care

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