# MAT IN PREGNANCY

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# KAYLA

LIFE STAGE 1: ADOLESCENCE

family History of addiction

moderate early life trauma

early substance use

elective pregnancy termination at 17

LIFE STAGE 2: EARLY ADULTHOOD

addiction to oral opioids

poorly controlled anxiety

physical dependence and addiction to benzodiazepines

pregnant

NO SOCIAL SUPPORT

# WHAT TO DO?

- Medication Assisted Treatment
  - Buprenorphine
  - Methadone
  - Naltrexone
- Detox and abstinence-based treatment
  - Inpatient detox?
  - What level of care
  - Risk of relapse

# MAT BENEFITS

- Stabilizing fetal levels of opioids, reducing repeated prenatal withdrawal
- Linking mothers to treatment for infectious diseases (e.g., HIV, HBV, HCV), reducing likelihood of transmittal to the unborn baby
- Improving long-term health outcomes for the mother and baby

- Compared to untreated pregnant women, women treated with methadone or buprenorphine had infants with:
  - lower risk of NAS
  - less severe NAS
  - shorter treatment time
  - higher gestational age, weight, and head circumference at birth

# BUPRENORPHINE

- **Long-acting partial agonist Mu Opioid Receptor**
- **Office-based opioid addiction treatment**
  - Schedule III
  - Buy at local pharmacy (Subutex, Suboxone, Zubsolv, Bunavail) Very low risk of overdose
- **Combined with naloxone (Suboxone, Zubsolv, Bunavail)**
- **In Pregnancy primarily Subutex (Buprenorphine only)**
  - ASAM guidelines, SAMHSA Treatment Improvement Protocol
  - Higher risk of diversion and misuse

# BUPRENORPHINE AND PREGNANCY

- Pregnancy Category C
- Well tolerated
- Same treatment outcomes as compared to methadone as non pregnant patients
- For Kayla we need to consider
  - Dose of oxycodone and hydrocodone
  - She will most likely have rapid and severe withdrawal if we just give her buprenorphine
  - She is also on a benzo and smokes marijuana

# WHERE DO WE DO THE INDUCTION FOR KAYLA

- Use the ASAM criteria
- With this we find that she needs either intensive outpatient treatment or inpatient induction
- The inpatient induction will decrease to chances of significant withdrawal
- If no inpatient care is available, you can ask her to go to OB triage as soon as she feels any withdrawal.
  - Make sure and describe the COWS scoring
  - Talk to OB triage nursing the Resident in house and the Attending
- If OB triage is not available the have her show up at the office as soon as it opens and as that she take her last dose before midnight.

# WHAT IS THE RIGHT DOSE?

- **Individually determined**
  - Based on tolerance, withdrawal
  - Other medications, past use of buprenorphine
- **Induction if on other opioids**
  - Should be done by or with involvement of a specialist if possible
- **Generally not allowed to go into moderate or severe withdrawal**
- **Higher risk in 1st and 3rd trimester**
- **Starting dose**
  - Dose at 8-16 mg initially and titrate as needed

# HOW TO DISPENSE

- To start these should be weekly prescriptions with frequent UDS's
- Weekly for 6 weeks
- Every 2 weeks until delivery then weekly for 4 weeks after
- Urine or oral fluid Tox screens for each visit
- Diversion control

# BIRTH PLAN- AFTER DELIVERY

**Kayla on 8mg of buprenorphine-naloxone 2 times per day (BID)**

## Spontaneous vaginal delivery:

- Decrease Buprenorphine to 8 mg daily
- May use epidural but would use fentanyl as opioid
- Add Ketorolac 15-30mg IV every 6-8 hours or Ibuprofen 800mg every 8 hours
- After 36 hours return to 8mg of Buprenorphine-naloxone BID, May increase to total of 24 mg per day
- Discharge on same dose with no further opioid prescriptions

## C-section Delivery:

- Decrease buprenorphine to 8mg daily
- Spinal analgesia using fentanyl or Duramorph as the opioid
- Add Ketorolac 15-30mg IV every 6-8 hours or Ibuprofen 800mg every 8 hours
- If still painful would use Patient Controlled Analgesia (PCA) at 150 mcg/4 hours with no basal rate for 36-48 hours
- May add 1 gram of IV acetaminophen Q 6 hours
- Increase buprenorphine-naloxone to 8 mg 3 times per day and call provider to obtain insight and provide appropriate care transition

# BUPRENORPHINE: BREASTFEEDING

- Buprenorphine is found in breast milk 2 hours post-maternal dosing
- Concentration of buprenorphine in breast milk is low
- Amount of buprenorphine or norbuprenorphine the infant receives via breast milk is only 1%
- This amount may help abate NAS
- Most recent guidelines: “the amounts of buprenorphine in human milk are small and unlikely to have negative effects on the developing Infant”
- “The advantages of breast feeding prevail despite the very low to no risk of an infant opiate intoxication caused by methadone or buprenorphine.”

# WITHDRAWAL MANAGEMENT MEDICATIONS

- **Clonidine is category C**
  - 0.1 mg up to 3 times a day
- **Benzodiazepines are category D**
  - Has shown fetal anomalies
- **Buprenorphine and methadone are category C**
  - This is only due to lack of effort to obtain FDA changes

# NEONATAL ABSTINENCE SYNDROME

- **Characterized by**
  - Hyperactivity, irritable
  - Hypertonia
  - Difficulty/excessive sucking
  - High-pitched cries
- **Begins 3h to 3d after delivery**, depending on other drugs used by mother
  - Nicotine, SSRIs, Benzo's, MJ etc

# Mother Study

- MOTHER provided the first RCT data to support the safety and efficacy of methadone
- Maternal outcomes are similar between medications
- Pain management and breastfeeding recommendations are similar between medications
- In terms of NAS severity, buprenorphine can be a front-line medication option for managing opioid-dependence for pregnant women who are new to treatment or maintained on buprenorphine pre-pregnancy
- NAS, its treatment and elucidating factors that exacerbate and minimize it, remains a significant clinical issue for prenatally opioid-exposed neonates
- Currently there is great variation in terms of medications and use of tools.

# Kayla

- Kayla should do well on buprenorphine
- Consider inpatient for induction
- See her often and do a tox screen every visit
- Monitor anxiety and try to not let her use the Buprenorphine as a reflexive treatment
- Buprenorphine is better for NAS
- Breast feeding is great for a lot of reasons
- Post op pain treatment should not be a scary thing

# COUNSELING

- **Required component**
- **Formats**
  - Groups (10-18% effective)
  - Individual CBT (22-32% effective)
  - 12-Step (6-12% effective)
- **Groups more effective if with other pregnant or post delivery moms**
- **Relapse prevention**
- **Coping skills**
- **Case management**

# PARENTING SKILLS

## Education

Breastfeeding

Umbilical cord care

Approach for ‘fussy’ infant

Age-appropriate discipline for other children

## Prevent frustration that leads to relapse

Evaluate post OB visit

Have a plan for delivery and make sure she has a copy

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