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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