CARING FOR THE OPIOID-DEPENDENT PREGNANT PATIENT

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April 19, 2017
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SPEAKER DISCLOSURE

• I have no commercial/financial or nonfinancial relationships to disclose that are relevant to this presentation
OBJECTIVES

- Explain the **epidemic** of opioid use in pregnancy and **risks** of chronic untreated opioid use in pregnancy
- Learn **screening tools** used to identify patients at risk in the office and hospital setting
- Understand the benefits of **opioid agonist maintenance therapy in pregnancy** for both mom and baby
- Optimally **manage pain** in the opioid-dependent patient on L&D and on Postpartum

DEFINITIONS

(Adapted from ACOG Committee Opinion 538 – Nonmedical Use of Prescription Drugs)

- **Drug dependence** –
  - caused by normal adaptations to the chronic use of a drug
  - leads to physical withdrawal if drug stopped abruptly
  - leads to a need for higher doses to achieve the same effect (**tolerance**)
  - dependence can also be psychological – a subjective need either to get the positive effects or to avoid the negative effects caused by abstinence

- **Drug abuse** –
  - intentional use of any drug (prescription or illicit) for the experience or feeling it causes
  - abuse of a prescription drug involves taking of the medication either without a prescription OR in a manner other than prescribed
  - most commonly abused prescription drugs are opioids which can cause euphoria
DEFINITIONS
(ADAPTED FROM ACOG COMMITTEE OPINION 538 – NONMEDICAL USE OF PRESCRIPTION DRUGS)

• **Drug addiction** –
  • inability to consistently abstain from drug use = craving or need to continue
  • impairment in behavior control & dysfunctional emotional response
  • diminished recognition of problems with one's behavior & interpersonal relationships
  • associated with cycles of relapse and remission
  • *an opioid-dependent patient is *not* necessarily an addict*
  • should be treated as a chronic disease that requires medical and behavioral treatment

• **Diversion** –
  • obtaining medication with intent to redistribute it to others

THIS IS THE REALITY

From Open Society Foundations (https://www.opensocietyfoundations.org/)
THE SCOPE OF THE PROBLEM

- Abuse of and dependence on illicit and prescription drugs, alcohol and tobacco products is a growing problem in the U.S.
  - Number of patients receiving treatment for nonmedical pain medication abuse doubled from 2004 to 2009
  - In 2009 -- that amounted to 1.25 million medical visits
  - 1.9 million Americans live with prescription opioid abuse/dependence, over 500K live with heroin addiction
  - 75% of prescription opioid addicts eventually switch to heroin as a cheaper source of opioid
  - In 2012, 259 million opioid prescriptions were written, more than enough to give each American adult their own bottle
  - Drug overdose death is now the leading cause of injury-related death, greater than both car accidents and homicide

THE SCOPE OF THE PROBLEM

- Arizona has been in the top 10 states nationwide in drug overdose-related deaths for several years -- 1200+ Arizonans died each year in both 2013 and 2014 of drug overdose

- Arizona has the 4th highest rate nationwide of nonmedical use of prescription pain relievers

- Arizona’s rate of drug-induced deaths is 18.2 per 100,000 residents compared to 14.7 per 100,000 residents nationally (in 2014)

- 9% of Arizona residents used illicit drugs in the last month (compared to 8% nationally)  

- Very expensive in terms of medical, economic, criminal, social impact = roughly estimated at half a trillion dollars annually in the United States
THE PROBLEM IS ONLY GOING TO GET WORSE

From CDC MMWR: Increases in Drug and Opioid Overdose Deaths — United States, 2000–2014 (January 1, 2016 / 64(50);1378-82)

THE SCOPE OF THE PROBLEM

- Huge increase in opioid pain reliever prescriptions over last decade
  -> increase in opioid pain reliever abuse and overdose/deaths
  -> increase in heroin use due to easy availability, low cost, & high purity
  -> increase in heroin overdose/deaths

- Drug use leads to poor/impaired decision making and to behaviors that are unsafe and/or unhealthy

- Users often become perpetrators and/or victims of domestic violence & child abuse

- Often leads to unprotected sex which results in STD’s and unintended pregnancies
  - 86% of pregnant opioid-dependent patients reported that their pregnancy was unplanned
HOW ARE PEOPLE OBTAINING PRESCRIPTION OPIOIDS?
(From the 2010 National Survey on Drug Use and Health)

- 55% Family Member or Friend (Free)
- 23% Legally Prescribed By MD
- 4% Drug Dealer
- 17% Online Order
- 1% Other

**Adolescents often obtained the pain medications from family members within their home without their knowledge or permission**

WHAT DO THESE NUMBERS REALLY MEAN?

I DID THE MATH

WE CAN'T AFFORD THE CAT
PREGNANCY: AN OPPORTUNITY TO EDUCATE ON MEDICATION SAFETY

- **When prescribing any medication, education by the provider on proper medication safety measures may help to prevent the onset of abuse and resulting addiction by the patient, family members, and friends**

- The patient should be the sole user of the prescribed drug and follow the instructions exactly

- They should never give the medication to a friend or family member even if that individual has the identical condition

- High-risk medications should be stored in a secure location where adolescents and children in the home cannot access them

- Unused medications should be taken to a pharmacy for disposal or mixed in coffee grounds or kitty litter if being discarded

- **Patients do not need to worry about short-term use of opioids for moderate to severe episodic pain during pregnancy**
  - Has never been shown to lead to addiction or harm the baby

- Most states now have prescription drug monitoring programs to identify individuals who may be abusing prescription drugs and to detect possible sources of diversion
  - These programs miss the huge percentage of people who are obtaining opioids without a prescription, such as from family/friends

- Physicians should also minimize prescribing these meds to those at high risk of addiction, never give telephone refills for them, and taper them rather than stopping abruptly
IDENTIFYING PATIENTS WITH DRUG ADDICTION

- Medical staff should never rely on risk factors alone to identify opioid-dependent patients

- Combine screening tests, history-taking, risk factors, and physical exam to determine which patients need urine drug testing to confirm reported or suspected drug use

- Unethical to do drug testing without patient’s consent unless she is unconscious or intoxicated & the information would help with her care
  - Doing so without consent compromises trust in the relationship

- Physicians and nurses should:
  - be familiar with the types of drug testing available at their hospital
  - be aware of the potential for false-positive and false-negative results
  - be knowledgeable about typical drug metabolite detection times

PREGNANCY: A PERFECT TIME TO SCREEN & COUNSEL ABOUT DRUG USE

Oh, yes, I know about parasites too.
PREGNANCY: A PERFECT TIME TO SCREEN & COUNSEL ABOUT DRUG USE

• ACOG recommends screening ALL women for drug use
  • rates of substance abuse are similar in all socioeconomic and cultural backgrounds (although the drug of choice might vary)
  • YOU CANNOT KNOW THE ANSWER UNTIL YOU ASK – PATIENT APPEARANCE & BEHAVIOR MEANS NOTHING

• Use a validated questionnaire such as “The 4 P’s Plus Screen”©

Parents: Did any of your parents have a problem with alcohol or other drug use?
Partner: Does your partner have a problem with alcohol or drug use?
Past: In the past, have you had difficulties in your life due to alcohol or other drugs, including prescription medications?
Present: In the past month have you drunk any alcohol or used other drugs?
Scoring: Any “yes” should trigger further questions.

The CRAFFT questionnaire is another option:

• The following screening tests are good at identifying heavy alcohol drinkers but poor at identifying at-risk early alcohol abusers and illicit drug users who would benefit from early intervention:
  • CAGE (Cut down, Annoyed by criticism, Guilty about drinking, Eye-opener)
  • NET (Normal drinker, Eye-opener, Tolerance)
  • T-ACE (Tolerance, Annoyed by criticism, Cut down, Eye-opener)
  • TWEAK (Tolerance, Worry about drinking, Eye-opener, Amnesia, K/Cut down)
SCREENING & COUNSELING

• Pregnant women are highly motivated to modify their behavior to help their unborn children –
  • one study showed 57% of illicit drug users abstain during pregnancy for their baby’s sake

• Physician should screen at first prenatal visit and intermittently again at subsequent visits
  • Patient will often deny initially but may be willing to discuss as comfort with physician increases and concept of having a baby becomes more “real”

• OB triage is also an ideal location to screen for substance use

Addiction is a chronic medical condition:

ASSESSING SCREEN POSITIVE PATIENTS

• Screening, assessing screen positive patients, and discussion of treatment options should be performed in a nonjudgmental and supportive fashion

• Ask questions respectfully with neutral wording/tone - escalate the questioning slowly:
  1) Legal substances: tobacco, alcohol
  2) Misuse of OTC drugs: pseudoephedrine, dextromorphan
  3) Misuse of prescription drugs: opiates, benzodiazepines, sedatives
  4) Illegal substances: marijuana, heroin, methamphetamine, cocaine

• Ask about routine of administration, especially intravenous

• Asking about quantity of use is not necessarily helpful as patients are unlikely to be truthful and does not necessarily correlate with abuse/dependence

• Ask if patient has ever sought treatment and what has been successful in the past

*Comparison of Relapse Rates Between Drug Addiction and Other Chronic Illnesses*

<table>
<thead>
<tr>
<th>Illness</th>
<th>Percentage of Patients Who Relapse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1 Diabetes</td>
<td>18 in 33%</td>
</tr>
<tr>
<td>Drug Addiction</td>
<td>48 in 64%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>50 in 74%</td>
</tr>
<tr>
<td>Asthma</td>
<td>38 in 79%</td>
</tr>
</tbody>
</table>

Relapse rates for drug-addicted patients are compared with those suffering from diabetes, hypertension, and asthma. Relapse is common and similar across these illnesses (as is adherence to medication). Thus, drug addiction should be treated like any other chronic illness, with relapse serving as a trigger for renewed intervention.

CONTINUE ASSESSMENT EVEN IF SCREEN NEGATIVE

MEDICAL RED FLAGS FOR DRUG ADDICTION

- **Past medical history of:**
  - cellulitis
  - skin abscess
  - endocarditis
  - osteomyelitis
  - suspicious trauma
  - tuberculosis
  - hepatitis
  - phlebitis

- **Past obstetric history of unexplained adverse events:**
  - miscarriage
  - stillbirth
  - abruptio
  - IUGR
  - preterm delivery
  - precipitous delivery
SOCIAL RED FLAGS FOR DRUG ADDICTION

- Partner is a substance abuser (often the person who introduces/supplies drugs)
- Being young, unmarried or uneducated
- Living in a community where drugs are readily available
- Victim of domestic violence
- Encounters with law enforcement agencies because of violence or trauma, theft, or prostitution
- Lack of family involvement
- High risk sexual behavior or STD’s (prostitution for drugs?)
- Sudden change in behavior: acting disoriented, erratic, aggressive, somnolent, or agitated
- Tobacco use
- Older children not living with the mother or involved with CPS
- Family history of substance abuse
- Late initiation of prenatal care
- Anxiety, depression, other psychiatric history
- Multiple missed appointments
- Being young, unmarried or uneducated
- Impaired school or work performance

PHYSICAL EXAM CLUES

(SOURCE: UPTODATE 2014)
CONFIRMATORY LAB TESTING

I HAVE THE RESULTS FROM YOUR STOOL SAMPLE...

DELICIOUS

TYPES OF DRUG SCREENS

- **Universal drug testing of all pregnant women NOT RECOMMENDED**
  - Not cost-effective
  - False positive tests can occur, with potentially profound medical and/or social consequences
  - Testing should be based on risk factors and should be done with patient’s consent:
    - History of prior positive UDS
    - Noncompliance with prenatal care
    - Obstetric complication such as pre-eclampsia, IUGR, abruption, unexplained IUFD
    - Monitoring of compliance with opioid agonist treatment

- **Urine Drug Screen**:
  - Results most rapidly available as usually testing is done in-house at most hospitals and are not a “send-out”
  - Does not provide information about current intoxication, only about recent use
  - Should verify with lab that any positive results undergo confirmation by gas chromatography/mass spectrometry (aka GC/MS) to identify the exact compound
    - For legal/CPS purposes
    - Need to identify which opiate is present in patient’s system
DRUG TESTING

- **Plasma Drug Screen:**
  - correlates better with physiological symptoms in patient
  - however, time frame in which a drug is detected is sooner and shorter than in urine
  - may not test for as many drugs as urine
  - good option when patient can’t or won’t provide urine

- **Meconium Drug Screen:**
  - 3 meconium samples sent from each baby of a suspected mother:
    - self-reported history of use
    - mom has history of prior positive UDS
    - mom has history with CPS
    - mom’s current UDS is positive
  - useful to detect drugs taken in the last trimester of pregnancy
  - if mom’s drug screen is positive for the same substance, no further action is needed
  - if mom’s drug screen is negative, then confirmation by GC/MS is usually performed to identify the exact substance

DRUG SCREEN DETECTION TIMES

<table>
<thead>
<tr>
<th>Drug</th>
<th>Detection Time (Plasma)</th>
<th>Detection Time (Urine)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphetamine</td>
<td>Up to 48 hours</td>
<td>2 – 5 days</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>Up to 52 hours</td>
<td>4 – 6 days</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Highly variable</td>
<td>2 – 7 days</td>
</tr>
<tr>
<td>Cannabinoids</td>
<td>Up to 57 hrs in light users; 3 – 13 days in regular users</td>
<td>1 – 7 days in light users; 30 – 45 days in regular users</td>
</tr>
<tr>
<td>Cocaine</td>
<td>Up to 24 hours</td>
<td>1 – 3 days</td>
</tr>
<tr>
<td>Methadone</td>
<td>Up to 5 days</td>
<td>1 – 14 days</td>
</tr>
<tr>
<td>Opiates</td>
<td>Up to 24 hours</td>
<td>1 – 3 days</td>
</tr>
</tbody>
</table>

**Depends on many factors: half-life and amount of drug, method of ingestion, frequency of use**
DRUG LIFE OFTEN BARRIER TO PRENATAL CARE

I DIDN'T CHOOSE THE PUG LIFE

THE PUG LIFE CHOSE ME

PRENATAL CARE – OFTEN LATE OR NEVER

• Unfortunately, we do not get the opportunity to help many addicted pregnant patients for various reasons:
  • Have difficulties with transportation and/or health insurance
  • Choose not to come in due to guilt or shame about their drug use
  • Fear that the doctor will tell them the drug use has hurt the baby or the doctor will treat them poorly due to their addiction
  • Worried about legal intervention or loss of custody of child
  • May mistake the early signs of pregnancy – nausea, vomiting, cramps – with symptoms of withdrawal
  • Too enmeshed in the “drug life”
  • No child care for the older children

• If they do come in for prenatal care, these pregnant women often:
  • Start late in pregnancy
  • May not be honest about their drug use
  • Are noncompliant with the prenatal visit schedule and ordered tests

• This is why the hospital is also an important location for screening!
OPIOID USE IN PREGNANCY

• 5.4% of pregnant patients report using any illegal drug in the last month

• **Estimated that 0.1 – 2.6% pregnant patients are taking opioids**
  • heroin at 0.1% (survey)
  • prescription opioids at 1% (survey)
  • any opioid at 2.6% (a study that screened all pregnant women using UDS in an urban hospital)

• Aspirin and ibuprofen are generally contraindicated in pregnancy --
  • patient may have been unknowingly taking dangerous amounts of the coformulated drug if using a combination pill such as Vicoprofen or Percodan

OPIOID USE IN PREGNANCY

• Another risk is fetal exposure to the myriad of chemical compounds with which street heroin is adulterated – some of these may be harmful to the fetus

• for example: **levamisole** – currently used as an animal dewormer and formerly a chemotherapy drug that was taken off the market for causing agranulocytosis
OPIOID USE IN PREGNANCY

Chronic untreated opioid use in pregnancy increases the risk of:

- miscarriage
- fetal growth restriction
- placental abruption
- placental insufficiency
- PPROM
- preterm labor & delivery
- intraamniotic infection
- intrauterine passage of meconium
- pre-eclampsia
- postpartum hemorrhage
- septic pelvic thrombophlebitis

Recently also being called “Neonatal Opioid Withdrawal Syndrome” (NOWS)

Many neonates exposed to maternal opiate use during pregnancy will go through withdrawal starting 24-96 hours after birth

Symptoms can include:
- Fussiness
- Difficulty feeding
- Jitteriness/tremors/shakes
- Stiff arms, legs and back
- Difficulty sleeping
- High pitched cry
- Vomiting
- Sneezing/stuffy nose
- Loose stools/diarrhea
- Yawning
- Fast breathing
- Fevers
- Seizures

Affected infants may need to be hospitalized for 2-4 weeks and may need treatment with morphine and/or methadone

Estimated that 48 to 94% of affected infants will require pharmacological treatment

Supportive care also very important – swaddling, quiet/calm room, rocking, skin-to-skin comfort, breastfeeding

Severity decreases as gestational age of the infant at birth decreases

PRETERM = LESS SEVERE NAS

Severity and onset of NAS symptoms varies based on half-life, timing, and frequency of drug taken

At higher risk of Sudden Infant Death Syndrome (SIDS) during infancy
OPIOID WITHDRAWAL IN PREGNANCY

- **Withdrawal symptoms include:**
  - drug cravings
  - agitation
  - anxiety
  - muscle aches
  - GI distress
    - nausea/vomiting
    - diarrhea
    - abdominal cramps
  - insomnia
  - runny nose and/or teary eyes

- Some of these symptoms can be helped by supportive medications but they should never be the mainstay of treatment in pregnancy.

OPIATE WITHDRAWAL IN PREGNANCY

- Although uncomfortable, withdrawal is **NOT life-threatening** to the patient, whether pregnant or not.

- However, abrupt withdrawal without treatment **CAN BE life-threatening** to the fetus.

- **KEY POINT:** OB/GYN’s, pain specialists, primary care doctors, etc. should **NOT** suddenly stop prescribing opioids if a patient who has been taking them long-term becomes pregnant.

- Ethically, it is the responsibility of the original prescriber to continue prescribing them until that physician and the patient’s OB collaboratively counsel and arrange for the patient to be seen by a physician who is comfortable with managing opiate dependence in pregnancy.

- Unfortunately, the OB often has to be the bridge between the original prescriber who is now “uncomfortable” continuing the prescription and the addiction medicine specialist.
  - Get documentation of exact doses – do not increase or decrease the dose aggressively.
THERE IS A TREATMENT THAT WORKS

OPIOID AGONIST THERAPY

- Opioid agonist therapy (OAT) is the mainstay of treatment

- Preferred agonists – aka methadone or buprenorphine – are long-acting
  - this prevents withdrawal symptoms
  - this also causes significantly less euphoria (feeling “high”)

- OAT reduces stress to the fetus from repeated withdrawals due to inconsistent availability of illicit opioids

- OAT also has been shown to reduce the severity of NAS in the infant after birth

- The process of starting an opioid agonist after stopping the abused opioid completely is called induction
MATERNAL & FETAL BENEFITS OF OPIOID AGONIST THERAPY

- Prevents fluctuation of the maternal opioid levels
- Reduces use of illegal opioids and other drugs
- Decreases risk of hepatitis C, HIV, and other STD's
- Removes pregnant women from drug-seeking environment
- Provides more stable intrauterine environment for the fetus and reduces the risk of hypoxia
- Improves ability to get prenatal care and to participate in substance abuse treatment programs
- Improves maternal nutrition and infant birth weight
- Reduces risk of obstetric complications
- Reduces illegal behaviors such as prostitution
- Improves monitoring of older children under mother’s care
- Improves chances that mother will retain custody of infant and of older children as well
- Reduces risk of maternal overdose/death
- Reduces severity of NAS in neonate

METHADONE

- Full opioid agonist at the mu receptor available in injectable and oral formulations
  - this is the same receptor to which natural endorphins bind = euphoria
  - “Gold Standard” with long history (>30 years) of safety and efficacy in pregnancy
- Half-life is 8 hours in pregnancy, compared to 22-24 hours in chronic nonpregnant takers
  - Hence twice daily dosing is ideal in pregnancy
- States allow outpatient administration of methadone in a limited-dose fashion by licensed clinics
  - patients usually need to go to the clinic daily to take the AM dose
  - they get the PM dose in hand to take 12 hours later
  - this strategy is to prevent diversion – where the drug is resold on the street
- There is a greater benefit the earlier in pregnancy it is started
  - longer the duration of methadone use = longer gestation/higher birthweight
METHADONE

- Frequent urine drug testing at these clinics is performed to detect polysubstance abuse
  - diminishes the benefit of the methadone
  - may worsen neonatal abstinence syndrome
  - estimated that 1/3rd of pregnant women in methadone treatment programs are using another substance concurrently

- Will often require dose increases in the third trimester as the higher levels of progestin cause the methadone to be more rapidly metabolized and there is an huge increase in blood volume

- Overdose can lead to respiratory depression and cardiac arrhythmias such as torsade de pointes

- No increase in birth defects although there may be a higher incidence of visual issues
  - reduced visual acuity
  - delayed visual maturation
  - nystagmus
  - strabismus

BUPRENORPHINE

- Partial opioid agonist at the mu receptor available in sublingual tablet and film formulations – brand name “Subutex”
  - IV form approved for pain management only
  - some abusers are crushing this medication and injecting it

- Also available as combination pill with naloxone (“Narcan”) to prevent abuse – brand name “Suboxone”
  - contraindicated in pregnancy as the naloxone could worsen fetal withdrawal especially if an abuser injects this medication

- Half-life is 24 – 60 hours
BUPRENORPHINE

- **Has both agonist and antagonist properties:**
  - binds to the mu opioid receptors tightly but does not activate them fully
  - patients feel stable and no withdrawal sx’s but also feel less euphoric effects than methadone
  - as the dose increases, a ceiling effect is reached = the agonist effect hits a plateau and then the drug works more antagonistically

- Since the drug will displace other opioids from the mu receptors, if first dose given too early, could precipitate much worse withdrawal symptoms

- Licensed providers can prescribe a month’s worth of this medication
  - more convenient for the patient who thereby would not need to go to a clinic daily (such as with methadone)

- **Diversion** of buprenorphine is now on the rise

BUPRENORPHINE VS. METHADONE

- **Buprenorphine’s advantages when compared to methadone:**
  - less risk of overdose due to the ceiling effect
  - fewer drug interactions
  - patient convenience without daily visits to the clinic
  - evidence of less severe neonatal abstinence syndrome (blinded randomized controlled trial results published in NEJM, 2010)
    - 89% less morphine and 43% shorter hospital stay

- **Buprenorphine’s disadvantages when compared to methadone:**
  - lack of long-term data regarding effects on children and infants
  - reports of liver dysfunction
  - more difficult induction phase
  - higher patient dropout rate due to dissatisfaction with the drug
    - one study showed only 67% of pregnant buprenorphine users continued on the drug until delivery whereas 89% of pregnant methadone users stayed on it until delivery
MAINTENANCE VS. DETOXIFICATION

- Both ACOG and the American Society of Addiction Medicine (ASAM) recommend AGAINST detoxification – now known as medically supervised withdrawal – during pregnancy.

- This includes both types:
  - conversion to an opioid agonist and tapering to a much lower dose or completely off
  - withdrawal from the original opioid in a tapered fashion without treatment with an opioid agonist

- Detoxification proponents believe that this strategy reduces the severity of NAS.

- However, there is a significantly increased risk of relapse to illicit drug use with this strategy.

MAINTENANCE VS. DETOXIFICATION

- Studies suggest that maintenance doses of less than 60mg methadone daily also increase risk of relapse.
  - it has been suggested that the optimal dose is 80 – 120mg daily especially because at this dose receptors are so occupied that taking extra opioids will confer no euphoric benefit
  - a higher maternal dose has not been shown to worsen the course of NAS

- If detoxification is the only option (patient may live very far away from a licensed provider), the optimal time is in the second trimester.
  - increases miscarriage risk in the first trimester
  - increases preterm labor and fetal death in the third trimester
WHAT SHOULD I DO NEXT?

• I’ve identified a pregnant patient who needs help! How can I get them into treatment?

TREATMENT OPTIONS

• We need to help her leave the drug-using lifestyle and community as soon as possible and get her into a treatment program ASAP

• We especially need to help her understand why maintenance treatment with methadone or buprenorphine is the goal!

• What if the next time she uses is the time when:
  • she commits a crime to get the money to purchase the heroin and she is arrested and an innocent bystander is killed?
  • she prostitutes herself and catches hepatitis C?
  • she is raped or assaulted while high?
  • the older children she brings with her are injured?
  • she overdoses and dies?
TREATMENT OPTIONS

• A comprehensive treatment program is best – that combines behavioral therapy and medication

• Your hospital team (Case Management/Social Workers/Nurses/OB’s) need to generate a list of local resources/programs and connect with those programs now – to create a smooth referral process to get pregnant patients from your OB triage/ED/office to an intake appointment ASAP – preferably within a day or two maximum

• We do not want the mother to stop opiate use cold-turkey and create more stress for the fetus and increase the risk of IUFD

TREATMENT OPTIONS

HOWEVER:

• What if your patient presents to the ED in the middle of the night now ready to “detox” having stopped using 2 days ago and her methadone clinic intake appointment isn’t scheduled for another week?

• What if your patient is vomiting so significantly from the opiate withdrawal that she cannot keep oral methadone down?

• What if her pregnancy is so far along that none of the local programs are amenable to do opioid agonist induction as an outpatient without close fetal surveillance?

• What if she has concurrent obstetric complications such as preterm labor or intrauterine growth restriction?

**Banner Thunderbird Medical Center in Phoenix does provide an emergency option for pregnant patients in these types of scenarios**
WHY CONSIDER STARTING OAT AS AN INPATIENT?

- Monitor fetal well-being, especially if viable
- Ability to give PRN doses to prevent withdrawal as well as supportive medications (antiemetics, sedatives, etc.) while getting to goal dose quicker
- Ability to monitor closely for side effects and for overdose
  - There is a high potential for adverse effects or drug interactions
  - Overdose can lead to respiratory depression and cardiac arrhythmias such as torsade de pointes
- Concurrently address any obstetric complications
  - Good opportunity to have patient meet with SW and with NICU
  - File report with CPS to help with infant disposition after birth
  - Ensure discharge with appointments for prenatal care and for outpatient OAT

BTMC'S OPIATE AGONIST THERAPY PROGRAM

- Patient is admitted to our antepartum floor
- Induction with methadone based on the COWS (Clinical Opiate Withdrawal Score) while monitoring closely for oversedation/side effects
- Buprenorphine only offered at this time to select motivated patients who already have a buprenorphine provider lined up
- If viable, fetus is monitored appropriately
- Our high-risk team of OB Hospitalists and Maternal-Fetal Medicine specialists will manage any obstetric complications
- Our neonatologist will meet with her to discuss Neonatal Abstinence Syndrome (NAS)
BTMC’S OPIATE AGONIST THERAPY PROGRAM

• Our social work team will do their best to locate a clinic near her home so she can continue getting prenatal care with her original OB

• **THIS IS NOT A COMPREHENSIVE TREATMENT PROGRAM WITH BEHAVIORAL THERAPY**

• This is merely a bridge to stabilize patient on methadone until she can get into a proper treatment program

• Patient is discharged only when they have an appointment at a treatment program the very next morning – our goal is to only hospitalize them for 3-4 days

BTMC’S OPIATE AGONIST THERAPY PROGRAM

• **THIS IS A VOLUNTARY PROGRAM** – the patient should come to our OB triage on her own

• She has to sign a contract to participate in our program, agreeing to provide urine at any time, to not leave the floor, to be searched if there is any suspicion she or a visitor has brought any drugs or drug-use paraphernalia, etc.

• We only arrange for maternal transport if patient is too ill from vomiting or if there is a fetal/obstetric concern

• Please call to discuss with us prior to sending a patient to ensure we have an open bed
An objective method of identifying and quantifying level of opioid withdrawal

Patients often keep asking for additional doses – which might be part of their addiction behavior or might be from fear of withdrawal

This helps to prevent us from over- and under-dosing these patients

**DOSING IN A NUTSHELL**

- We start at a low dose BID – scheduled at 7am & 7pm
- We give PRN doses every 3 hours based on the COWS scale (aka how badly patient is withdrawing)
  - 5-12 = mild
  - 13-24 = moderate
  - 25-36 = moderately severe
  - >36 = severe
- We total the amount given over each 24 hour period and divide that into BID doses for the next day
- Patient has reached her maintenance dose when she no longer requires any PRN doses in between the scheduled doses
WHAT IF AN OPIATE ADDICT HAS REAL PAIN?

MANY MISCONCEPTIONS ABOUT MANAGING ACUTE PAIN IN THESE PATIENTS ARE PROPAGATED BY MEDICAL STAFF – PHYSICIANS AND NURSES ALIKE!

MISCONCEPTIONS ABOUT ACUTE PAIN MANAGEMENT FOR PATIENTS ON OAT

- Many health providers do not have a strong understanding about how to manage this situation — which results in undertreatment of acute pain for these patients
- “The methadone or buprenorphine will provide analgesia”
  - the analgesic effect is far shorter than the withdrawal suppression effect
  - due to neuroplastic changes, these patients usually have an increased sensitivity to pain
  - usually have a cross-tolerance to multiple opioids where usual doses of other narcotics don’t have as strong of an analgesic effect
- “Giving these patients other opioids for analgesia will result in addiction relapse”
  - multiple studies show no evidence for this theory
  - in fact, relapse prevention theories suggest that the stress associated with unrelieved pain is more likely to be a trigger for relapse than adequate analgesia
  - not been shown to cause the patient to later require higher doses of OAT
MISCONCEPTIONS ABOUT ACUTE PAIN MANAGEMENT FOR PATIENTS ON OAT

• “The additive effects of opioid analgesia and opioid agonist therapy may cause respiratory and CNS depression”
  • a theoretical risk that has never been clinically demonstrated
  • believed that acute pain serves as a natural antagonist to opioid-caused respiratory and CNS depression
  • one case report described how a chronic pain patient on long-term opioid agonist therapy developed acute respiratory depression after a successful nerve block (with no change in opioid agonist dose)

• “Reporting pain may be a manipulation to obtain opioid medications, or a drug-seeking behavior, because of the opioid addiction”
  • physicians have a fear of being manipulated by patients
  • use objective pain-scoring scales to confirm patient’s need for the analgesia
  • typical doses of opioid agonists block most euphoric effects of coadministered opioids, theoretically decreasing the likelihood of opioid analgesic abuse

HOW TO MANAGE THESE PATIENTS’ PAIN IN LABOR
MANAGING LABOR & DELIVERY
(METHADONE)

- Management of these patients’ acute pain is analogous to managing another chronic disease: diabetes
- Continue methadone at the same dose (analogous to basal insulin)
- Verify the patient-stated dose when the doctor’s office/treatment clinic opens
- If not contraindicated, regional anesthesia is often the most ideal
- Start by treating intrapartum and postpartum pain with the same narcotics/NSAID’s at identical doses as any other patient (analogous to bolus insulin)
- OB and anesthesiologist should be cognizant of patient’s possible increased opioid tolerance which may require higher doses
- AVOID mixed agonist-antagonist drugs such as Stadol and Nubain
- Alert pediatric/NICU team about the imminent delivery of a probable NAS infant

MANAGING LABOR & DELIVERY
(BUPRENORPHINE)

- Physicians DO NOT need a special license to order buprenorphine for an inpatient whose primary condition is unrelated to addiction e.g. labor
- If the pain is anticipated to be short-term, continue the same dose of buprenorphine (analogous to basal insulin)
- Verify the patient-stated dose when the doctor’s office/treatment clinic opens
- If not contraindicated, regional anesthesia is often the most ideal
- Consider using fentanyl or tramadol and NSAID’s for add-on pain management (analogous to bolus insulin)
  - buprenorphine has such a strong affinity for the mu receptors so the pain medications that use the mu receptor such as morphine and oxycodone may be ineffective
- Once again, the OB and anesthesiologist should be cognizant regarding patient’s increased tolerance when dosing the acute pain medications
- AVOID mixed agonist-antagonist drugs such as Stadol and Nubain
- Alert pediatric/NICU team about imminent delivery of a probable NAS infant
**MANAGING LABOR & DELIVERY (TAKING STREET OPIOID AGONISTS)**

- Often, patient claims to be taking “X” mg of methadone or buprenorphine but they got the medication off the street or from a friend – not under the supervision of a physician
- Urine drug testing can help show what exactly patient has been taking – to confirm patient is only taking the opioid agonist
- It is safer to err on the side of ordering the agonist at a lower dose than the stated dose and giving additional small PRN doses based on the objective COWS scale or using narcotics alone
- You should still order pain medication as you normally would for any other patient admitted with the same condition (analogous to bolus insulin)
- Get social work/case management involved to get them referred to an outpatient addiction clinic

**MANAGING LABOR & DELIVERY (STILL ABUSING OPIOIDS)**

- If patient is still taking illicit or prescription opioids, then regional anesthesia is the best option for intrapartum pain management if not contraindicated
- Otherwise, patient is likely to demand very high doses of IV narcotics and still have suboptimal pain relief
- Once postpartum, treat with same narcotics/NSAID’s as any other patient but patient may require higher doses
- Postpartum nurses can use the COWS scale to monitor for withdrawal symptoms and this can guide how to increase doses of pain medications gradually/provide supportive medications
- Get social work/case management involved to get them referred to an outpatient addiction clinic
WHEN DISCHARGING THESE POSTPARTUM PATIENTS:

- Provide a medication administration record to the patient to take back to her treatment program so the clinic can verify that any medications present in patient's drug screen were administered in the hospital
- **Encourage continued enrollment in a treatment program in order to reduce risk of relapse in the postpartum period**
- Set up postpartum visits to keep patient in the health care system
- Unfortunately, many (but not all) of opioid-using women return to drug use once delivered
- These patients are at *increased risk* for an unintentional overdose as they often try to return to the same amount of opioid they were taking before stopping in pregnancy
  - no longer have the tolerance to the same pre-pregnancy doses
  - physiologic drug requirement decreases due to lower blood volume & body mass

BREASTFEEDING

- Appropriate short-term opioid use for postpartum or postoperative pain IS NOT a contraindication to breastfeeding
- Opioid abuse IS a contraindication to breastfeeding
  - Uncontrolled high doses may cause central nervous system depression in the neonate
- Methadone IS NOT a contraindication to breastfeeding
  - methadone concentration in breast milk is low/unrelated to maternal dose
  - if anything, the small amounts of methadone in breast milk may help to smooth out the course of neonatal withdrawal
  - the benefits of breast milk outweigh the risk of exposure to a medication that baby has already seen in utero
BREASTFEEDING

• There are also benefits of the maternal-infant bonding during the act of breastfeeding to comfort the infant going through withdrawal.

• So far, buprenorphine is also believed to be safe for breastfeeding for the same reasons.

• Ensure that there aren’t any *other* contraindications to breastfeeding such as HIV or polysubstance use.

• May be advisable to reduce breastfeeding gradually to prevent the baby from going through withdrawal at the time of weaning – although this may be more theoretical than actually proven.

LEGAL ISSUES

- YOUR HONOR,
  I'LL LIKE TO CLOSE THIS CASE.

- HIRING A POMERANIAN AS YOUR ATTORNEY
  WILL WORK WELL WITH OUR INSANITY DEFENSE.
LEGAL ISSUES

ACOG Committee Opinion 473: Substance Abuse Reporting and Pregnancy: The Role of the Obstetrician/Gynecologist

• With the intent to improve healthy birth outcomes, some states have recently been attempting to:
  • criminally prosecute a pregnant drug user under child abuse statutes
  • use the information as grounds for involuntary commitment to a mental health or substance abuse treatment facility
  • Incarceration or threat thereof has never been shown to reduce the incidence of alcohol or drug use
  • Mandatory reporting of substance abuse puts the therapeutic relationship between a woman and her obstetrician at risk
  • Even civil penalties such as loss of housing or loss of custody implies addiction is a failing on the part of the patient and not a chronic medical condition that requires life-long treatment and support

LEGAL ISSUES

ACOG Committee Opinion 473: Substance Abuse Reporting and Pregnancy: The Role of the Obstetrician/Gynecologist

• Prenatal care has been shown to reduce the negative effects of substance abuse, including decreased risks of low birth weight and prematurity
  • Keeping these patients connected to the health care system and allowing them to speak openly about drug use with a physician has also been shown to improve pregnancy outcomes
  • These laws could also encourage women who do seek prenatal care not to disclose critical information about their drug use to their doctors
LEGAL ISSUES

ACOG Committee Opinion 473: Substance Abuse Reporting and Pregnancy: The Role of the Obstetrician/Gynecologist

- Such policies may also have the unintended effect of encouraging women who do not think they can overcome their addiction to terminate their pregnancies in order to avoid being arrested or to attempt to stop their opioid abuse without opioid agonist therapy.

- ACOG released a statement against such punitive drug enforcement policies since they may discourage women from seeking prenatal care and asking for treatment for addiction and may result in dishonesty, termination of wanted babies, or stillbirth from abrupt opioid withdrawal.

- Instead, ACOG encourages the development of more addiction treatment programs that not only accept pregnant women but are targeted to their needs and give them priority enrollment over non-pregnant patients.

GUTTMACHER INSTITUTE STATEMENT: SUBSTANCE ABUSE IN PREGNANCY

- One state (Tennessee) allows assault charges to be filed against a pregnant woman who uses certain substances.

- 18 states consider substance abuse during pregnancy to be child abuse under civil child-welfare statutes, and 3 consider it grounds for civil commitment (forced commitment to treatment program).

- 18 states require health care professionals to report suspected prenatal drug abuse, and 4 states require them to test for prenatal drug exposure if they suspect abuse.

- 19 states have either created or funded drug treatment programs specifically targeted to pregnant women, and 12 provide pregnant women with priority access to state-funded drug treatment programs.

- 4 states prohibit publicly funded drug treatment programs from discriminating against pregnant women.

** As of February 1, 2016**
GUTTMACHER INSTITUTE STATEMENT: SUBSTANCE ABUSE IN PREGNANCY

**As of May 1, 2016**

- You have to advocate for the pregnant patient to give priority access – many programs do promise this but it can be hit-or-miss when calling the program directly.

- There is federal funding for “high-risk” patients in these programs – this includes pregnant patients and HIV-positive patients – so it is not always necessary for the patient to have AHCCCS or insurance.

**CONCLUSIONS**

WE NEED TO ACT NOW BEFORE THE SITUATION GETS MUCH WORSE!!!
CONCLUSIONS

• Screen every pregnant patient for illicit and prescription drug abuse (as well as alcohol and tobacco use) at the first prenatal visit, periodically at other PNC visits, and during all hospital outpatient/inpatient visits

• Use drug testing with consent to confirm the suspected or reported drug use and understand the types of testing available to ensure the most accurate results

• Refer all opioid-dependent pregnant patients to a comprehensive outpatient treatment program or to Banner Thunderbird’s inpatient opioid-agonist therapy program (with subsequent enrollment in a local comprehensive treatment program)

• Follow guidelines for pain management when patient returns for delivery and encourage breast-feeding if patient has stayed off the opiates

• Encourage patient to stay in the treatment program once postpartum to prevent relapse and possible overdose

• BE POSITIVE AND NONJUDGMENTAL – It is great that these patients are asking for help and wanting to get better!!

ANY QUESTIONS?

• Thank you for your time!

• Please do not hesitate to call or email me with any questions or if you desire any of the references for the information provided in this talk
  • 650-274-6252 (my cell phone – text or call)
  • shefaligandhilist@yahoo.com

• If you need to refer a patient urgently to Banner Thunderbird’s inpatient opioid agonist therapy program, please call:
  • the OB Hospitalist on shift at (602) 770-8144
DEDICATED TO MY FAMILY