Opiate Dependence in Pregnancy

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Healing for life℠

Goals

- **Review salient features of methadone and buprenorphine**
- **Discuss peripartum and perioperative pain management**
- **Resources for finding help!**

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Background

- **Antenatal opiate use is on the rise**
  - **5x increase since 2000**
    - **From 1.2 to 5.6 per 1000 live births**
- **Neonatal abstinence more common**
    - **From 1.2 to 3.2 per 1000 live birth**
- **Increasing cost of treating newborns**
  - **$730M in 2000 to $1.5B in 2012**
- **Medication assisted treatment is common**
  - **Methadone and buprenorphine**

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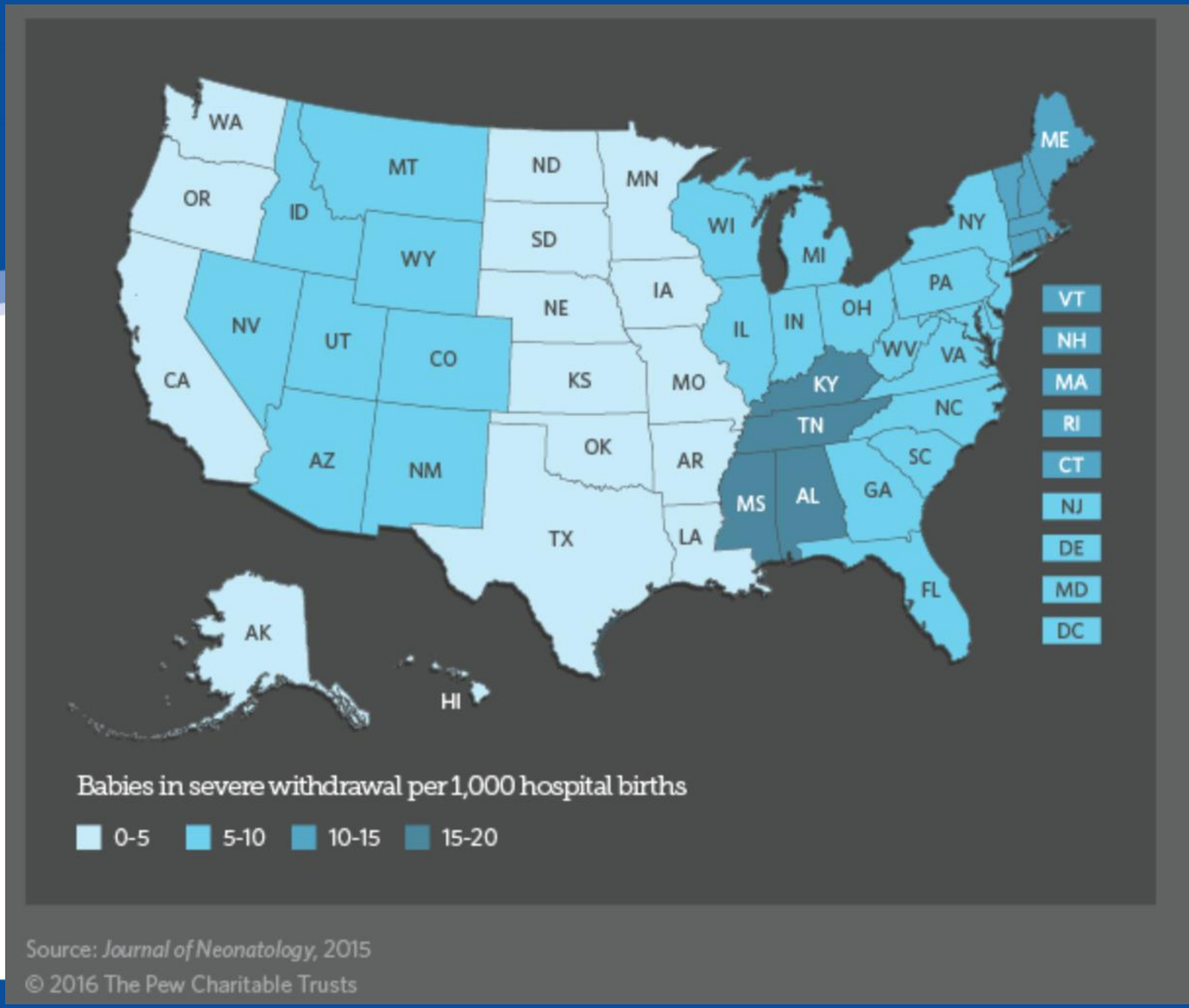
Patrick et al J Perinat 2015;35:650-655.



Source: *Journal of Neonatology*, 2015

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The Changing Face of Opiate Addiction

- **Then**
  - **Illicit heroin and oxycontin**
  - **IV, smoking, snorting, swallowing**
- **Now**
  - **Rx medications via “pain clinics”**
- **On the horizon**
  - **Resurgence of heroin as we recognize MD role in current epidemic**

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Subsets of Patients

1. **Stable on maintenance opiates**
   - **Buprenorphine and methadone**
2. **Active users of illicit/diverted substances**
   - **Heroin, oxycontin, dilaudid, Rx opiates**
3. **Rx opiate dependent with chronic pain**
   - **Prior surgeries, orthopedic complications, etc**
   - **The very most difficult group to treat….**

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Perinatal Risks

- **Data derived from heroin users…**
- **Higher rates of growth restriction, placental abruption, preterm birth**
  - **Confounded by concurrent tobacco, other substances, social disarray, etc.**
- **Risks may not generalize to the current demographics of opiate dependence**
- ***Neonatal Abstinence Syndrome***

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Neonatal Abstinence Syndrome

- **Potentially life-threatening withdrawal syndrome in the chronically exposed neonate**

High pitched cry, neurologic irritability, frantic sucking, yawning, sneezing, diarrhea, vomiting, tachypnea, and seizures if left untreated

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Incidence of NAS

Drug	Onset, hours	Incidence	Duration, days
Heroin	24-48	40-80%	8-10
Methadone	48-72	13-94%	Up to 30 or more
Buprenorphine	36-60	22-67%	Up to 28 or more
Prescription opioids	36-72	5-20%	10-30

Adapted from Kocherlakota, P *Pediatrics* 2014; 134(2):e547-561.

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Rational for Long Acting Opiates

- **Stop cycle of erratic use and withdrawal**
- **Lifestyle stabilization**
- **Reduced risk-taking behaviors**
  - **Exposure to infectious risk, trauma, interpersonal violence, etc etc**
- **Avoid risk of acetominophen toxicity**

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Methadone

Advantages

- **Well known, safe**
- **Multiple programs**
- **Treatment of acute pain more straightforward**

Disadvantages

- **Tightly controlled administration**
- **Higher OD risk**
  - **especially initiation**
- **Stigma barrier for some**
  - **Particularly Rx addiction for chronic pain**
- **Dose increase common**
  - **Physiologic changes of pregnancy and clearance**

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Buprenorphine

- **Partial opiate agonist**
- **Office based prescribing by licensed providers**
  - **Does not require daily visits**
- **Suboxone vs Subutex**
  - **Buprenorphine +/- naloxone**
  - **Combination product outside pregnancy**
- **Initiation requires mild withdrawal**
  - **“induction” to avoid precipitated withdrawal from *partial* agonist**

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Buprenorphine

Advantages

- **Reduced NAS**
- **Less safety data, though reassuring**
- **Less overdose risk**
- **Greater flexibility, convenience, reduced stigma**

Disadvantages

- **Requires licensed providers**
- **Less effective for highly addicted women**
  - **Higher failure rate**
- **Diversion increasing**
  - **especially Subutex**
- **Management of acute pain challenging**

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Methadone vs. Buprenorphine

Maternal Opioid Treatment: Human Experimental Research (MOTHER) Project

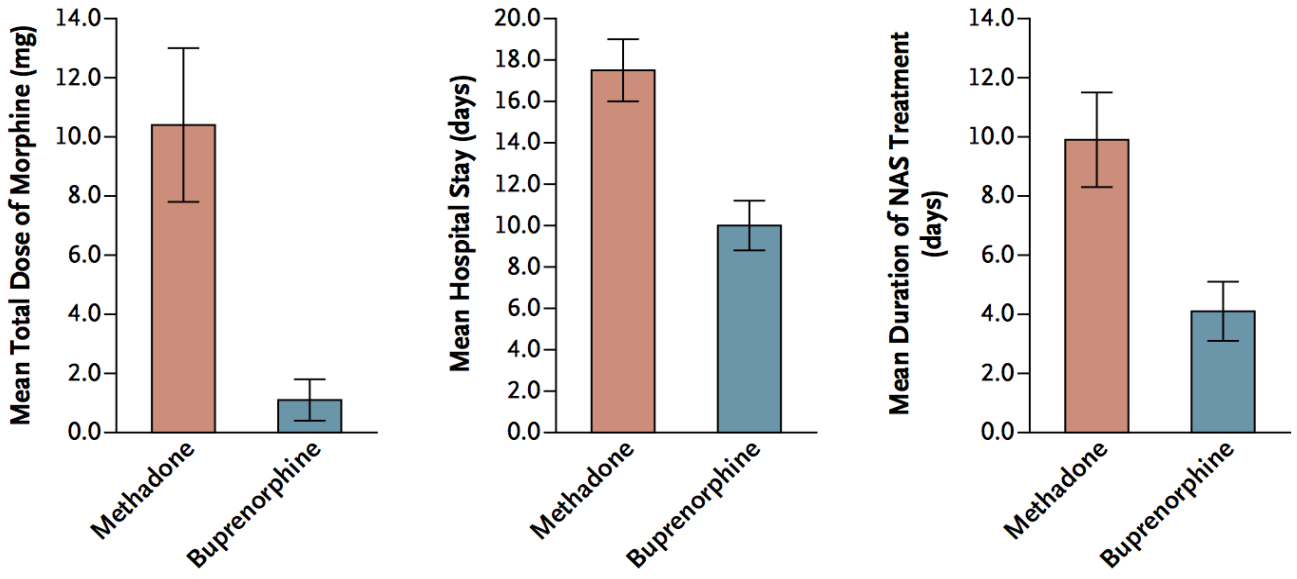

Figure 2. Mean Neonatal Morphine Dose, Length of Neonatal Hospital Stay, and Duration of Treatment for Neonatal Abstinence Syndrome.

Jones et al *NEJM* 2010;363(24):2320-31.

Supervised Withdrawal

- **Not currently advocated**
  - **Concern for PTL, SAB, and high relapse rates**
- **Limited recent data suggest it might be less risky than once thought with lower NAS**
  - **No difference in PTB**
  - **NAS 18% with close maternal f/u**
  - **Relapse 17-23% with intensive followup**
- **Ask me again in 5 years…**

Bell et al AJOG Sept 2016; 215:364.e1-6

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Prenatal Care

- **Early US whenever feasible**
  - **Dating is crucial due to risk for IUGR**
- **Address psychiatric comorbidities**
  - **Present in 2/3 of women**
  - **NO BENZOS!!!**
- **Consider 3rd trimester repeat testing**
  - **STIs, HIV, HCV (where risk factors apply)**

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Reporting and Treatment

State	Maternal SA Considered Child Abuse	Required to Report Suspected Child Abuse	Required to Report Antenatal SA	Targeted Programs for Pregnant Women	Priority Access for Pregnant Women
ID		presume			
NV	X	X	*		
UT		X	X		X
WY		presume			

*No specific law regarding obligation to report maternal substance abuse *as child abuse*.

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https://www.guttmacher.org/state-policy/explore/substance-abuse-during-pregnancy

Antenatal Surveillance

- **Stable patients on long-term maintenance**
  - **Detailed fetal survey at 18-22 weeks**
  - **Growth US at 32 weeks, testing based on results and subsequent obstetrical indications**
- **Polysubstance users**
  - **Detailed survey at 18-22 weeks**
  - **Growth US 28, 32, 36 weeks**
    - **30 and 36 weeks reasonable**
  - **Weekly NST/AFI as of 34-36 weeks**

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Antenatal Testing and Methadone

- **Longer time to reach reactive NST**
  - **25 min vs. 21 min**
- **Higher incidence of a non reactive NST**
  - **19% vs. 4%**
- **Longer time to complete BPP**
  - **20 min vs. 4 min**
- **Buprenorphine has less impact on tracing**

Salisbury et al Addiction 2012;107(Suppl1):36-44
Cejtin et al J Reprod Med 1996;41(11):819-22

Acute Pain Control

- **Short acting opiates can be safely used**
  - **Tolerance and hyperalgesia are problematic**
- **Buprenorphine tightly binds μ receptors**
  - **higher doses required to achieve superimposed analgesia**
- **Partial agonists should be avoided, may precipitate acute withdrawal**
  - **nalbuphine (Nubain), butorphanol (Stadol), pentazocine (Talwin)**

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MISCONCEPTIONS

- **“Maintenance therapy serves as analgesia”**
  - **Analgesia window 4-8 h but dosing is q24**
  - **Withdrawal prevention window 24-48 h**

- **“Giving opioids for acute pain will lead to relapse”**
  - **Untreated real acute pain is more likely to lead to relapse (fractures, surgery, etc)**

Normal Labor

- **Regional anesthesia highly effective**
- **IV narcotics are safe to bridge to regional block**
  - **But less effective for buprenorphine users**
- **Continue scheduled maintenance opiate at usual doses intrapartum**

Postpartum: Vaginal Birth

- **Hyperalgesia common**
- ***Avoid additional narcotic if possible***
  - **Especially with buprenorphine**
- **Ketorolac (Toradol) and NSAIDs are helpful**
  - **Do not give ibuprofen and ketorolac concurrently**

Planned Cesarean: Methadone

- **Routine spinal**
- **Continue methadone on schedule**
- **Short acting narcotics for postoperative pain**
  - **Anticipate higher doses to achieve pain control**
  - **Consider oxycodone over combined meds**
    - **Limited to ≤ 3 g Tylenol in 24h (6-10 tabs)**
- **Develop a taper plan with patient *beforehand***
  - **Typically 1-2 weeks, written out, no refills**

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Planned Cesarean: Buprenorphine

- **Limited evidence to guide best practice…**
- **Buprenorphine strongly binds μ receptors**
  - **Takes 48-72 hours to clear from system**
  - **Harder to break through with full agonists and achieve acute pain control**
- **Up to 50% increase in postop pain medication use relative to non-opioid users**

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Perioperative Planning: Bup

- **Option 1:**
  - **Hold buprenorphine day of surgery**
  - **Combined spinal/epidural with planned patient controlled analgesia (PCEA) for first 2-3 days**
  - **Short acting opiates for 2 weeks postop**
  - **Transition back to buprenorphine**
- **Option 2**
  - **Continue scheduled buprenorphine but divide daily dosing q6- 8 hours for better analgesic effect**
  - **Add on short-acting narcotics**
    - **May end up using high doses, concern for increased sedation risk**

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Perioperative Monitoring: All

- **Increased risk for respiratory depression with supplemental narcotics**
  - **Continuous pulse-oximetry for 24-48 hours**
    - **While titrating narcotics to effect, especially for patients requiring high doses to superimpose on buprenorphine**

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Postpartum Period

- **Breastfeeding encouraged in stable patients**
  - **Methadone and buprenorphine felt to be safe**
    - **Associated with reduced NAS severity**
  - **Infant sedation higher with short acting opiates**
- **LARC contraception is CRITICAL**
  - **Nexplanon before discharge if feasible**
  - **Depo bridge at DC with planned IUD in 6 weeks**
- **Early follow up with treatment program**
  - **dose adjustment (2-5 days)**
  - **pyschosocial support, relapse prevention**

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Antenatal Opiate Surveillance

- **Frequent urine drug screening**
  - **If not already being performed**
- **Drug contracts, clear communication**
- **Utilize UT Controlled Substance Database**

  dopl.utah.gov/programs/csdb
- **Educate patients about “chronic” pain**
  - **It isn’t going away, narcotics will likely give you a second problem**

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Finding Local Resources

- **Substance Abuse and Mental Health Services Administration (SAMSHA)**

samhsa.gov

- **Medication assisted treatment programs**
- **Buprenorphine treatment physician locator**

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Questions?

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