

Treating Women for Opioid Dependence during Pregnancy and the Postpartum Period:

The Importance of Science and Clinical Care Informing Each Other



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Objectives

- Compare and contrast the benefits and risks of providing methadone, buprenorphine or medication assisted-withdrawal during pregnancy for the mother, fetus and neonate.
- Identify the benefits of measuring and treating neonatal opioid withdrawal using different assessment tools and medication strategies.
- Examine the different approaches for dealing with problem behaviors related to opioid addiction during pregnancy and the postpartum period.

Disclosures

- Discussing 2 medications, methadone and buprenorphine, currently labeled by the US Food and Drug Administration (FDA) as Category C for use in pregnancy for the treatment of maternal opioid dependence: "Animal reproduction studies have shown an adverse effect on the fetus and there are no adequate and well-controlled studies in humans, but potential benefits may warrant use of the drug in pregnant women despite potential risks."
- Pregnant women with opioid use disorders can be effectively treated with methadone or buprenorphine. Both these medications should not be considered "off-label" use in the treatment of opioid-dependent pregnant patients.
- Reckitt-Benckiser Pharmaceuticals for donated active placebo tablets and reimbursement for time and travel in 2011.

Acknowledgements

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- Maternal Opioid Treatment: Human Experimental Research (MOTHER) Site PIs and investigative teams



Outline



- ♦ Contexts of Opioid Use during Pregnancy
 - Historical
 - Current
- ♦ Pharmacotherapy for the opioid-dependent pregnant patient
 - Methadone
 - Buprenorphine
- ♦ NAS Measures and treatments
- ♦ Strategies for addressing challenging patients

Historical Context of Opioid Use during Pregnancy

Substance use during pregnancy in the USA has been a long-standing important health issue. In the 1800s:

- 66–75% of individuals with opium use disorders were women
- Women's most common opium source was medical prescriptions to treat pain
- Physicians recognized neonatal opioid withdrawal and the need to treat in utero opium exposure with morphine in order to prevent morbidity and mortality

♦ Following the 1914 Harrison Narcotic Act, the treatment of substance use disorders was segregated from mainstream medical practice



Kandall, Substance and shadow, 1996. Earle, Medical Standards, 1888.

10 **Definition of Addiction**

American Society of Addiction Medicine

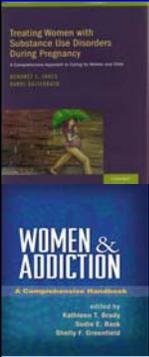
Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.

Addiction is characterized by inability to:

- > consistently abstain
- > impairment in behavioral control
- > craving
- > diminished recognition of significant problems with one's behaviors and interpersonal relationships
- > dysfunctional emotional response

Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.

11 **What Does Addiction Look Like In Women?**



- **Initiation of drug use**
- **How she obtains her drugs**
- **Where she uses her drugs**
- **How she recovers from drug use**

Untreated addiction places a woman and her fetus at risk for multiple adverse consequences

12 **Current Context of Opioid Use during Pregnancy**

Issues facing drug-using pregnant women and their children



- Exposure to violence and trauma
- Generational drug use
- Lack of formal education
- Lack of job acquisition and maintenance skills
- Gender inequality/male-focused society
- Legal involvement
- Multiple drug exposures
- Limited parenting skills and resources
- History of child abuse and neglect
- Multiple psychiatric issues
- Unstable housing
- Lack of positive and supportive relationships
- Food insecurity and lack of nutrition

→ *These factors with or without drug use can influence mother and child outcomes*

13 Current Context of Opioid Use during Pregnancy

Factors Influencing Mother and Child Outcomes



- Exposure to emotional, physical and sexual violence
- Histories of childhood abuse and neglect
- Multiple drug exposure (e.g., alcohol and tobacco)
- Poor maternal/child attachment
- Child abuse
- Psychiatric status of caregiver
- Stable caregiver and environment
- Nutrition

14 Summary of Historical and Current Context

- ◆ Although less frequent than alcohol and tobacco use, opioid misuse during pregnancy is nonetheless a serious and growing issue
- ◆ This increase in use of opioids by pregnant women appears to be driving an increase in the incidence of neonatal opioid withdrawal
- ◆ Opioid use by pregnant women is often complicated by polydrug use, and often occurs intertwined with complex personal, interpersonal, family, social, and environmental factors that can contribute to adverse consequences
- ◆ Women have unique needs for addiction treatment and multi-faceted interventions are needed to help prevent and treat opioid-dependence among women during pregnancy and their infants

15 Pharmacotherapy for Opioid Dependence



- Prevention of erratic maternal opioid levels lessens fetal exposure to repeated withdrawal episodes
- Reduces maternal craving and fetal exposure to illicit drugs
- With drug abstinence, other behavior changes can follow which decrease risks to mother fetus of infection from HIV, hepatitis and sexually transmitted infections
- Reduces the incidence of obstetrical and fetal complications and improves outcomes

Review in Kaltenbach et al., *Obstet Gynecol Clin North Am*, 1998.

16 **Methadone**



- Schedule II opioid
- Synthetically derived
- μ opioid receptor agonist
- also uniquely a δ -opioid receptor agonist
- Antagonist at NMDA receptors
- Half-life estimated to fall in the range of 24-36 hours
- It is one part of a complete treatment approach

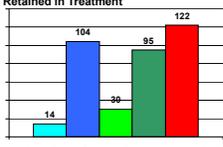
17 **Methadone: Induction and Dosing**



- Can be provided in inpatient or outpatient settings
- Patients typically begun on methadone when they are in mild withdrawal
- Benzodiazepines and alcohol should be ruled out before induction to minimize the likelihood of oversedation
- Patients are typically given in observed doses; 1st dose is small; observe for possible adverse effects
- Assuming no adverse effects, dose is titrated until it prevents withdrawal, cravings, and possible continued use of illicit opioids
- Optimal dose varies greatly between patients
- Blood concentrations of patients on an equivalent dose, adjusted for body weight, have been estimated to vary between 17- and 41-fold
- Dosing does not have to be more complicated for pregnant patients

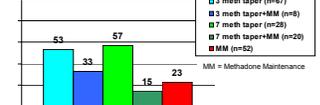
18 **Methadone v. Tapering**

Days Retained in Treatment



Group	Days Retained
3 meth taper (n=67)	14
5 meth taper+MM (n=8)	104
7 meth taper (n=28)	30
MM (n=52)	122

Urine-positive Drug Screen Percentage at Delivery



Group	Urine-positive Drug Screen Percentage
3 meth taper (n=67)	53
5 meth taper+MM (n=8)	33
7 meth taper (n=28)	57
MM (n=52)	23

MM = Methadone Maintenance

- Guidance regarding tapering v. maintenance was based largely on good clinical judgment
- Methadone taper followed by drug-free treatment is frequently unsuccessful
- Methadone maintenance facilitates retention of patients and reduces drug use
- Biggest concern with methadone during pregnancy is the potential for occurrence of neonatal abstinence syndrome (NAS)

Jones et al., *Am J Addict*, 2008.

19 Methadone: Dosing during Pregnancy

- In the 1970s, a positive relationship between maternal methadone dose and NAS severity was reported
- Recommendations to maintain pregnant women on methadone doses between 20 to 40 mg
- 3 decades of research shows an inconsistent relationship between maternal methadone dose and NAS severity
- The latest systematic review and meta-analysis concluded that the "Severity of the neonatal abstinence syndrome does not appear to differ according to whether mothers are on high- or low-dose methadone maintenance therapy."




Review in Cleary et al., *Addiction*, 2010.

20 Methadone: Dosing during Pregnancy

Split Dosing

- Maternal Results
 - increase drug negative urines during treatment
 - Increased adherence with treatment
 - decrease withdrawal symptoms in mother
 - No change in maternal heart rate, vagal tone or skin conductance
- Fetal Results
 - Minimizes the reduction in breathing
 - Minimizes the reduction in movement
 - Fetal movement-fetal heart rate coupling less suppressed

AM



12 hrs



PM

DePetrillo et al., 1995; Swift et al., 1989; Wittmann et al., 1991; Jansson et al., 2009

21 Methadone: NAS




Methadone-associated NAS

NAS signs	55-90%
Requiring medication	~ 60%
NAS appears	45 to 72 hrs
NAS peaks	40 to 120 hrs

- Most common medication for treatment is morphine
- Most common assessment tool is a "modified" Finnegan scale
- No current standard uniform protocol for treatment

22 **Methadone: NAS**

Other Factors Contributing to Severity

- **Structural**
 - The NAS assessment and medication initiation and weaning protocols
- **Non-modifiable**
 - Genetics?
- **Other Substances**
 - Benzodiazepines
 - SSRIs
 - Cigarette smoking



Jansson and Velez, Curr. Opin Pediatrics, 2012

23 **Methadone: Pain Management**

Pain and Opioid Dependence *Common Misconceptions*

- + Maintenance agonist doses provide analgesia
- + Prescription of opioids will be additive and cause respiratory depression and overdose
- + Prescription of short-acting opioids even in a controlled setting to an addicted person will cause a relapse
- + Request for pain management with opioids is part of "addictive behavior" by the patient



(Alford, et al., 2006)

24 **Methadone: Pain Management**

- Savage and Schofferman noted that patients who use opioids may have a "syndrome of pain facilitation"
- Their pain is worsened by their experience of their addiction, including:
 - subtle withdrawal signs and symptoms
 - intoxication
 - withdrawal-related sympathetic nervous system arousal
 - sleep disturbances
 - affective changes
- Patients who are dependent on opioids are known to be less tolerant of pain than formerly opioid-dependent individuals
- Long-term exposure to opioids produces both tolerance and hyperalgesia, reducing the analgesic effectiveness of opioids themselves
- Treatment of post-partum acute pain likely best attempted with PCA and/or acetaminophen and/or NSAIDS in addition to methadone dosage

Pregnant women in methadone maintenance treatment should not receive opioid agonist/antagonist pain medications (such as pentazocine or butorphanol) for acute pain because these medications may cause an acute opioid withdrawal syndrome

Savage & Schofferman, in: N Miller & M Gold, Editors, 1995; Jones et al., Am J Drug Al Abuse, 2009; Meyer et al., Obstet Gynecol, 2007.

25 **Methadone: Pain Management**

General Recommendations

- > Uninterrupted agonist therapy
- > Aggressive pain management with nonpharmacologic and nonopioid analgesic pain-relieving interventions
- > Titrate opioid analgesics to achieve pain relief (generally higher doses of opioid analgesic administered at shorter intervals)
- > Reduce anxiety of patient and treatment team with clear open communication (especially important in those with PTSD as fear of pain is elevated in adults with co-occurring trauma-related stress and social anxiety symptoms)



Alford, et al., 2006; Asmundson et al., 2005

26 **Methadone: Breastfeeding**

Breastfeeding in Methadone-Stabilized Mothers

- Methadone detected in breast milk in very low levels
- Methadone concentrations in breast milk are unrelated to maternal methadone dose
- The amount of methadone ingested by the infant is low (i.e., an average 0.2 mg/day by 30 days post-delivery)
- The amount of methadone ingested by the infant remains low even 6 months later
- Several studies show relationships between breastfeeding and reduced NAS severity and duration
- Hepatitis C is not a contraindication for breastfeeding
- Contraindications: HIV+, unstable recovery



D'Apolito, Clin Obstet Gynecol 2013; AAP Pediatrics 2012; McQueen et al., 2011; Jansson et al., 2007; Jansson et al., 2010.

27 **Methadone: Breastfeeding**

Barriers to Breast Feeding

- Infant experiencing NAS may have significant difficulties with breastfeeding
 - Excessive irritability
 - Crying
 - Disorganized suck
 - Mother's feelings of guilt about causing the NAS- may prefer not to further upset the infant
- Pediatric providers that are unaware of current recommendations
- Stigma resulting in discouraging or undermining of women's effort to breast feed



e.g., Jansson et al., J Hum Lact. 2004

28 **Methadone: Child Development**




Research focusing on the effects of prenatal exposure to methadone has been inconsistent

- ▲ Long-term effects on physical growth have not been demonstrated
- ▲ Although some research has shown that methadone-exposed school-age children to be less interactive, more aggressive, and showing poorer achievement than children not so exposed, other research has failed to show any differences in either cognitive or social development
- ▲ The issue is confounded by the fact that children exposed to methadone in utero may experience a nutritional, family, and parenting history quite different than children not so exposed.

Behnke et al., *Pediatrics*, 2013; Farid et al., *Curr Neuropharm*, 2008.

29 **Methadone: Summary**

40 years of documented benefits of methadone during pregnancy

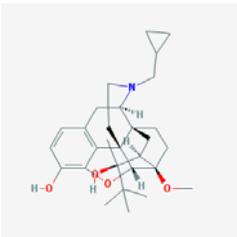



- Induction is relatively simple
- Adequate doses are needed to prevent withdrawal and other opioid use
- Indicators of fetal well-being are less compromised with split-dosing
- NAS is worse with heavier smoking
- Breastfeeding is compatible with methadone

Review in Kaltenbach et al., *Obstet Gynecol Clin North Am*, 1998.

30 **Buprenorphine**

- A derivative of the opioid alkaloid thebaine
- Schedule III opioid
- μ -opioid receptor partial agonist
- primarily antagonistic actions on κ -opioid and δ -opioid receptors
- Half-life estimated to fall in the range of 24-60 hours



Reviews in Jones et al., *Drugs*, 2012, and *Addiction*, in press.

Buprenorphine: Formulations

- Buprenorphine mono product (e.g., Subutex)
- Buprenorphine + naloxone (e.g., Suboxone)
 - 4:1 ratio to prevent misuse by injection
- 2 mg and 8 mg sublingual tablets
- 2 mg/0.5 mg and 8 mg/2 mg sublingual film strips



Reviews in Jones et al., Drugs, 2012, and Addiction, in press.

Buprenorphine: Induction and Dosing

- Patient must already be in withdrawal or buprenorphine may precipitate withdrawal
- Patients dependent on short-acting opioids (e.g., heroin, most prescription narcotics) will not take as long to enter withdrawal as patients dependent on long-acting opioids (e.g., methadone)
- Induction typically then takes places over a 3-day period, beginning with either 2 mg or 4 mg, with a maximum dose of:
 - 8 mg – 12 mg on Day 1
 - 12 mg – 16 mg on Day 2
 - 16 mg up to 32 mg on Day 3

Buprenorphine: Induction and Dosing

↳ The best induction protocol for opioid-dependent pregnant women is not known

Meyer has developed an outpatient protocol:

- Similar to established protocols for non-pregnant patients
- Ask patient to abstain from opioid use 1-2 days prior
- Expect a CINA score in 10-12 range to initiate treatment
- Adjust dose every 1-3 days
- Titrate to symptom control as for non-pregnant patients
- Takes place in the context of considerable program staff support

▶ As with methadone, there is the potential need to increase dosage during the course of pregnancy

34 Buprenorphine and Pregnancy

- Since 1995, over 40 published reports of prenatal exposure to buprenorphine maintenance
- Approximately 750 babies prenatally exposed to buprenorphine (number of cases per report ranged from 1 to 159; *Median*=14)
- Dose range 0.4 to 32 mg
- 88% reported concomitant drug use




Reviews in Jones et al., *Drugs*, 2012, and *Addiction*, 2012.

35 Buprenorphine: Maternal Outcomes

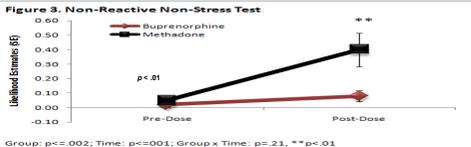


- ✦ Research with buprenorphine not as extensive as with methadone
- ✦ Well-tolerated and generally safe
- ✦ In contrast to the research with methadone, little research has compared buprenorphine to an untreated control group
- ✦ Rather, buprenorphine has been compared in both retrospective and prospective studies to methadone
- ✦ Majority of research would suggest that maternal outcomes are not in any way different than for methadone

Reviews in Jones et al., *Drugs*, 2012, and *Addiction*, 2012.

36 Buprenorphine: Fetal Outcomes

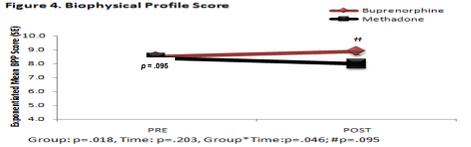
Figure 3. Non-Reactive Non-Stress Test



Group	Pre-Dose	Post-Dose
Buprenorphine	~0.05	~0.10
Methadone	~0.05	~0.40

Group: $p < .002$; Time: $p = 0.01$; Group x Time: $p = .21$, ** $p < .01$

Figure 4. Biophysical Profile Score



Group	PRE	POST
Buprenorphine	~8.5	~9.0
Methadone	~8.5	~8.0

Group: $p = .018$; Time: $p = .203$; Group * Time: $p = .046$; # $p = .095$

Sallisbury et al., *Addiction*, 2012.

Buprenorphine: NAS

- Incidence rate for NAS is estimated to be 50% – about the same as for methadone
- NAS onset approximately 48 hours
- Peaking within approximately 72-96 hours
- Exceptions to this onset history have been the few neonates with NAS onset of 8-10 days postnatal age
 - such a protracted withdrawal syndrome may be due to withdrawal from concomitant drug exposure (e.g., benzodiazepines) rather than a direct effect of buprenorphine withdrawal
- Correlation between buprenorphine dose and NAS severity has been inconsistent



Reviews in Jones et al., Drugs, 2012, and Addiction, 2012.

Buprenorphine: Pain Management



- Full agonist opioids can effectively treat pain in patients stabilized on either methadone or buprenorphine
- These results are consistent with data from non-pregnant surgery patients
- The importance of uninterrupted methadone or buprenorphine treatment in these patients is critical
- Each patient needs a pain management plan before delivery

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%
- 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 risks of an infant opiate intoxication caused by methadone or buprenorphine.”

Atkinson et al., 1990; Marquet et al., 1997; Johnson, et al., 2001; Grimm et al., 2005; Lindemalm et al., 2009; Jansson et al., 2009; Müller et al., 2011.

40 Buprenorphine: Child Development



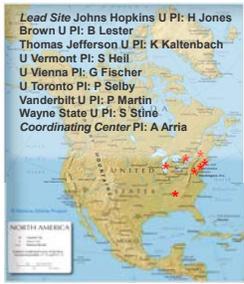
- Research on the neonatal consequences of prenatal exposure to buprenorphine is quite limited
- Not enough births have been followed for a sufficient period of time to collect convincing data regarding factors such as cognitive and social development
- Same issue of confounding parental and family factors in teasing apart developmental effect



Reviews in Jones et al., *Drugs*, 2012, and *Addiction*, in press.

41 MOTHER: Sites

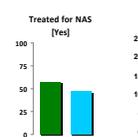
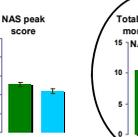
Lead Site Johns Hopkins U PI: H Jones
Brown U PI: B Lester
Thomas Jefferson U PI: K Kaltenbach
U Vermont PI: S Heil
U Vienna PI: G Fischer
U Toronto PI: P Selby
Vanderbilt U PI: P Martin
Wayne State U PI: S Stinin
Coordinating Center PI: A Arria

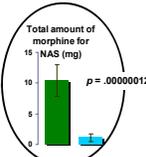
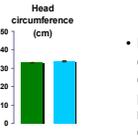


CENTRAL EUROPE



42 MOTHER: Buprenorphine v. Methadone

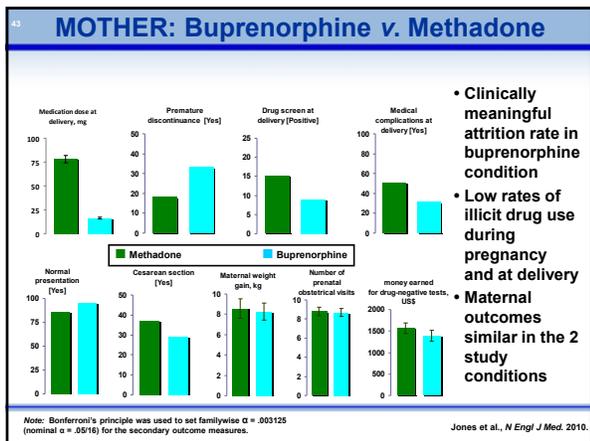



- Compared with methadone-exposed neonates, buprenorphine-exposed neonates
 - Required 89% less morphine to treat NAS
 - Spent 43% less time in the hospital
 - Spent 58% less time in the hospital being medicated for NAS
- Both medications in the context of comprehensive care produced similar maternal treatment and delivery outcomes

Notes: Significant results are circled. Site was a blocking factor in all analyses. The O'Brien-Fleming a spending function resulted in $\alpha = .0091$ for the inferential tests of the Medication Condition effect for the 5 primary outcome measures at the conclusion of the trial.

Jones et al., *N Engl J Med*, 2010.



Summary: Buprenorphine

- 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 should 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 concern for prenatally opioid-exposed neonates
- Currently there is great variation in terms of medications and use of tools.

NAS: Assessment and Treatment Background

- ◆ It is essential that infection, hypoglycemia, hypocalcemia, hypomagnesemia, hyperthyroidism, CNS hemorrhage, and anoxia be ruled out as the cause of the signs.
- ◆ Each nursery should adopt an abstinence scoring method to measure the severity of withdrawal.
- ◆ If pharmacologic management is chosen, relatively specific therapy, that is, a drug from the same class as that causing withdrawal, is preferable.

American Academy of Pediatrics Committee on Drugs. Neonatal drug withdrawal. *Pediatrics*, 2012; 129:e540-60.

46 NAS: Assessment and Treatment Background

- The decision to use drug therapy must be individualized, based on the severity of withdrawal signs and an assessment of the risks and benefits of therapy.
- Infants with confirmed drug exposure who do not have signs of withdrawal do not require therapy.
- Indications for drug therapy are seizures, poor feeding, diarrhea, and vomiting resulting in excessive weight loss and dehydration, inability to sleep, and fever unrelated to infection.



American Academy of Pediatrics Committee on Drugs. Neonatal drug withdrawal. Pediatrics, 2012; 129:e540-60.

47 NAS: Assessment and Treatment Background

- ▲ Improvement in abstinence scores should assist in assessing the appropriate timing for decreasing the dose of the drug chosen.
- ▲ Guides to adequate therapy include a normal temperature curve, the ability of the infant to sleep between feeding and medications, a decrease in activity and crying, a decrease in motor instability, and weight gain.

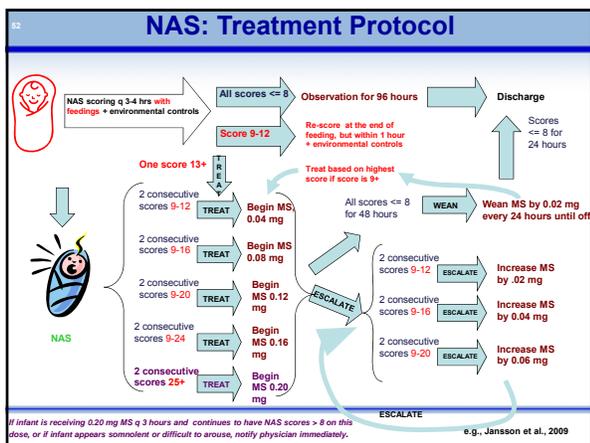


American Academy of Pediatrics Committee on Drugs. Neonatal drug withdrawal. Pediatrics, 2012; 129:e540-60.

48 NAS: Measurement

- ◆ A number of behavioral instruments have been developed to measure NAS, including: Neonatal Drug Withdrawal Scoring System (NDWSS), also known as the Lipsitz Tool; the Ostrea scoring system; and the Neonatal Abstinence Scoring System, often simply called the Finnegan Scale.
- ◆ The NDWSS assigns a score of 0-3 for tremors, irritability, reflexes, stools, muscle tone, skin abrasions, and tachypnea. In addition, a score of 0 or 1 is assigned for repetitive sneezing, repetitive yawning, and vomiting or fever. The AAP had previously endorsed the NDWSS as the method of choice for the measurement of NAS in 1998, because it uses a relatively simple numerical scoring method, with a 77% sensitivity as an indication of significant signs of withdrawal, using a cutoff score of 5 or greater.
- ◆ The Ostrea system scores only vomiting, diarrhea, weight loss, irritability, tremors or twitching, and tachypnea, and uses a simple ranking of mild, moderate, or severe rather than a numeric scale. This ranking procedure is often seen as a limitation, as it prevents the summation of the severity of multiple signs and symptoms.
- ◆ The Finnegan Scale uses a weighted score of 31 items, and requires considerable staff training and time for assessment of the neonate.
- ◆ A modified Finnegan scale is the most commonly used NAS assessment method (65% of surveyed hospitals)

Sarkar, Donn. J Perinatol. 2006; Jamsson, Velez, Harrow. J Opioid Manag. 2009; Jamsson, Velez. Pediatr Rev. 2011.



- ### NAS Treatment
- † **Opiates used for NAS due to opiate withdrawal have included:**

 - tincture of opium or morphine (63%)
 - methadone (20%)
 - paregoric (contains anhydrous morphine with antispasmodics, camphor, 45% ethanol, and benzoic acid)
 - † **Sedatives used for opiate withdrawal have included:**

 - clonidine (an alpha2 pre-synaptic blocker)
 - chlorpromazine
 - phenobarbitone
 - diazepam
 - † **Non-pharmacological treatments used have included** swaddling, settling, massage, relaxation baths, pacifiers and waterbeds
- One AS, Dixon SD. American Journal of Diseases of Children 1988;142:186-8; Thesis JG, Selby P, Wicler Y, Koren GS. Biology of the Neonate 1997;71:345-56; Sarkar, Datta. Management of neonatal abstinence syndrome in neonatal intensive care units: a national survey. J Perinatol. 2006;26:15-7.

- ### NAS: Recommendations
- ♦ NAS occurs in the majority of all prenatally opioid-exposed neonates
 - ♦ Medication to treat NAS is required in approximately 50% of the cases
 - ♦ NAS following prenatal exposure to an opioid agonist is best assessed with a standard scoring tool and best treated with an opioid medication
 - ♦ Patients and the providers who treat them will be best served through having a range of medication options from which to tailor treatment
 - ♦ As treatment for maternal opioid dependence advances, so must neonatal treatment (i.e., buprenorphine in the infant may be an important medication for treatment of buprenorphine exposure in utero)
- Osborn et al. Opiate treatment for opiate withdrawal in newborn infants. Cochrane Database Syst Rev. 2010 Oct 6;(10):CD002059.

85 Strategies to Deal with Challenging Patients

- ▶ Praise good behavior
- ▶ Validate and support
- ▶ Affirm and offer hope
- ▶ Treat with respect
- ▶ Reflect and re-frame her perspective
(e.g., if she says she can't – ask what CAN she do?)
- ▶ Do not take things personally
- ▶ Ask questions rather than making statements
- ▶ Prepare the environment

About a Nurse



"The doctor doesn't need to examine your hand. The pain is most likely from hitting the call button over 50 times in the last hour."

86 Nurture Yourself

Tips to reduce burnout

- Create opportunities to debrief, and use professional counseling when appropriate
- Be kind to yourself and have fun
- Stay healthy through restorative self-care and remember to laugh
- Set healthy boundaries
- Acknowledge your own attitudes, values and preferences
- Create rituals to delineate work time from personal time
- Reflect on powerful or difficult experiences through journaling and the support of peers, spiritual teachers and mentors to recover a sense of meaning, purpose and connection in life.

About a Nurse



"Frank just up and exploded. I hope I never get that burned out."



87 Take-home Messages



- ▶ Opioid addiction is a treatable illness
- ▶ Having more medications given in the context of comprehensive services to treat opioid-dependent pregnant women will optimize care
- ▶ Resilience or vulnerability following prenatal exposure to either illicit drugs or the medications to treat them are largely a function of the postnatal not the prenatal environment
- ▶ NAS is a treatable condition that deserves more study to find the most optimal medications and treatment protocols
- ▶ Nurturing yourself is critical to caring for others

Resources



Vermont Oxford Network

- ▶ <http://www.youtube.com/watch?v=3HsmuxtsBZ8>
- ▶ DRMC Neonatal Abstinence Syndrome
- ▶ <http://pcmch.on.ca/LinkClick.aspx?fileticket=JT9lpgEbN0%3D&tabid=40>
- ▶ <http://www.neoadvances.com/index.html>
- ▶ <http://www.vtoxford.org/home.aspx>
- ▶ http://www.health.qld.gov.au/qca/documents/q_nas5-0.pdf
- ▶ http://www.uvm.edu/medicine/vchip/documents/VCHIP_SNEONATAL_GUIDELINES.pdf
- ▶ <http://pediatrics.aappublications.org/content/101/6/1079.full>

Questions & Answers