Opioid Use Disorder Education and Treatment ECHO Series

Session 14 – Opioid Use Disorder and Pregnancy

June 7, 2022

Heather Bell, MD and Kurt DeVine, MD

Some slides adapted from Cresta Jones, MD

Project ECHO Stratis Health Minnesota

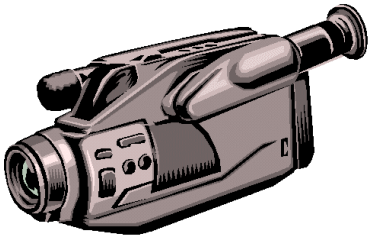
StratisHealth

MINNESOTA ACADEMY OF FAMILY PHYSICIANS

STRONG MEDICINE FOR MINNESOTA

Announcements

SESSIONS ARE RECORDED

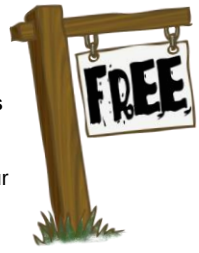


YES, THERE'S *FREE* CME

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Minnesota Medical Association (MMA) through the joint providership of Stratis Health and the Minnesota Academy of Family Physicians. **Stratis Health is accredited by the MMA to provide continuing medical education for physicians.**

Stratis Health designates this educational activity for a maximum of **1 *AMA PRA Category 1 Credits™*.**

Physicians should claim credit commensurate with the extent of their participation in the activity.



Continuing Education Credits and Contact Hours for Other Health Professionals
The OUD Education and Treatment ECHO Series may meet continuing education requirements for your focus. It is the responsibility of the individual to determine if this activity fulfills that requirement.

Attendance

- Please chat us the names of people on ECHO if there are multiple people in your room!
- "Re-name" your self so we know who's here!
- Please turn your video on!
  - Human connection!
  - And we do NOT care if you are eating!

Case Presentations!

The ECHO model is based on case-based learning!
The case presentation form is available on the MAFP website (https://bit.ly/OUDCase) and in the announcements email!
BUT feel free to present in any de-identified format!

Upcoming *Tuesday* ECHO Sessions

- **Tuesday, June 21, 2022:** TBD
- **Tuesday, July 19:** Perioperative Management
- **Tuesday, August 2:** Community Collaboration Engagement
- **Tuesday, August 16:** Motivational Interviewing (MI) Lapse/Relapse

Upcoming *Wednesday* ECHO Sessions

- **Wednesday, June 8, 2022 – TBD**
- **Wednesday, June 15, 2022**
  Local and National Drug Trends – Ryan Carroll, Drug Intelligence Officer, North Central HIDTA
- **Wednesday, June 22, 2022**
  Supporting Victims of Trafficking Also In Recovery from Substance Use – CeCe Terlouw-Kvistad, Founder & Executive Director of Terebinth Refuge
- **Wednesday, June 29, 2022**
  Scripting for Explaining Pain and CBT-Based Pain Management to Patients

"The Addiction Connection Podcast"

Weekly addiction topics- Tuesday release day!

www.buzzsprout.com/954034
(Or anywhere you get your podcasts!)
Email us questions:
theaddictionconnectionpodcast@gmail.com

TECHNICAL ASSISTANCE

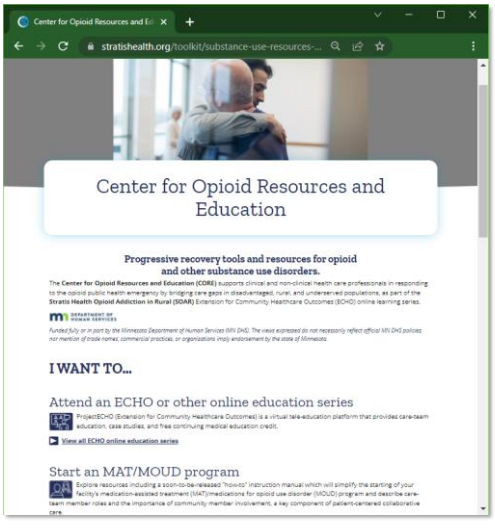
- **We are ALWAYS here for you!**
  - Program implementation
  - Inductions
  - Difficult cases
  - Trouble-shooting
  - Anything!
- **Call us anytime:**
  - Erin Foss, RN, Program Manager/Nurse Specialist efoss@stratishealth.org, Cell: 320-282-6553
  - Heather Bell: 320-630-5607
  - Kurt DeVine: 320-630-2507

NEW! Center for Opioid Resources and Education (CORE)

Online source for progressive recovery tools and resources for opioid and other substance use disorders includes:

- Links to all current OUD ECHOs
- How-tos to simplify starting an MAT/MOUD program
- SUD clinical resources to use in practice
- Info to connect with other MAT/MOUD practitioners
- And more!

Visit today at: bit.ly/CORE-Site



The **Center for Opioid Resources and Education (CORE)** supports clinical and non-clinical health care professionals in responding to the opioid public health emergency by bridging care gaps in disadvantaged, rural, and underserved populations, as part of the **Stratis Health Opioid Addiction in Rural (SOAR)** Extension for Community Healthcare Outcomes (ECHO) online learning series.
https://stratishealth.org/toolkit/substance-use-resources-and-education/

2022 Medications for Opioid Use Disorder (MOUD) Treatment Boot Camp

Friday, June 17, 2022
8:00 a.m. – 2:00 p.m.
Alerus Center, Grand Forks, North Dakota

This **no-cost**, **in-person** MOUD Treatment Boot Camp with Heather Bell, MD, and Kurt DeVine, MD, will focus on the neurobiology of addiction and addressing stigma to improve equity in managing opioid use disorder.

Find more info and register today at:
bit.ly/MOUD-BOOTCAMP

The 2022 Medications for Opioid Use Disorder (MOUD) Treatment Boot Camp supports clinical and non-clinical health care professionals in responding to the opioid public health emergency by bridging care gaps in disadvantaged, rural, and underserved populations, as part of the **Stratis Health Opioid Addiction in Rural (SOAR)** Extension for Community Healthcare Outcomes (ECHO) online learning series.

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Objectives

- Review pregnancy complications associated with opioid use disorder
- Discuss best practices for treatment of OUD in pregnancy
- Understand the basics of neonatal opioid withdrawal syndrome (NOWS)

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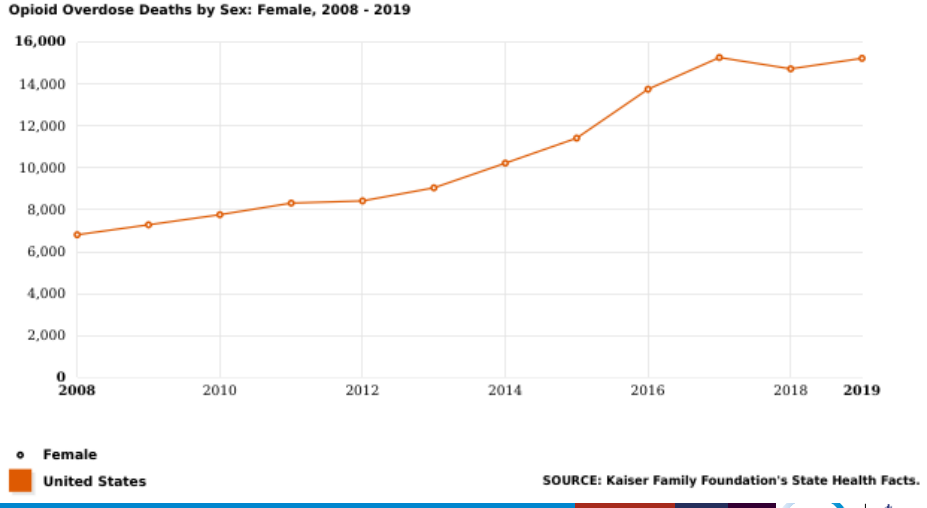
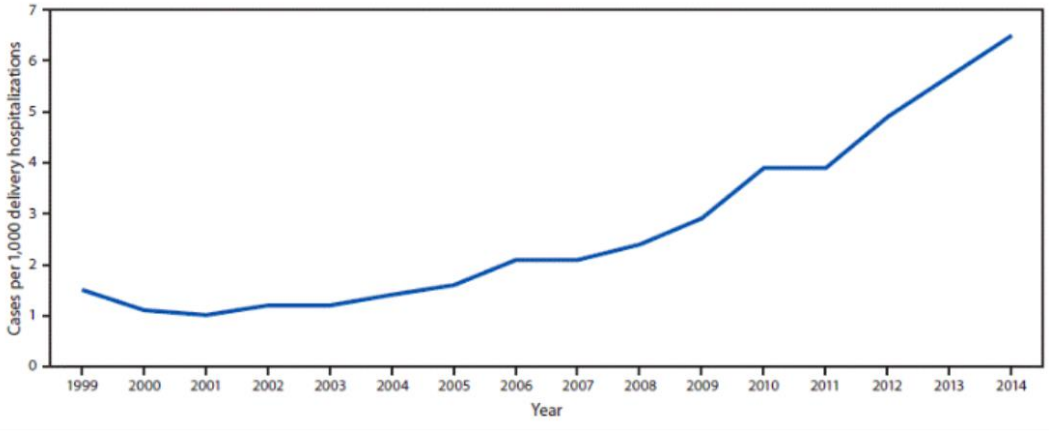
Fatal Opioid Overdose – Women, U.S.



Prevalence of OUD/1,000 Delivery Hospitalizations, U.S.



Maternal Complications

- Infectious exposure- sexually transmitted infections (increased syphilis), hepatitis C, HIV, endocarditis, osteomyelitis, cellulitis, sepsis
- Injury, overdose, and death
- Obstetric- preterm labor, placental abruption

Fetal/Neonatal Complications

- Fetal growth restriction – preterm birth, still birth
- Preterm delivery – neurological, physical complications, death
- Trans-placental/peri-partum infection – syphilis, HIV, hepatitis B/C
- Neonatal opioid withdrawal syndrome (NAS, NOWS)

Towers 2019

POLL QUESTION:
What is the most important reason to use MOUD in pregnancy?

16

POLL ANSWER

The most important reason to use MOUD in pregnancy is:

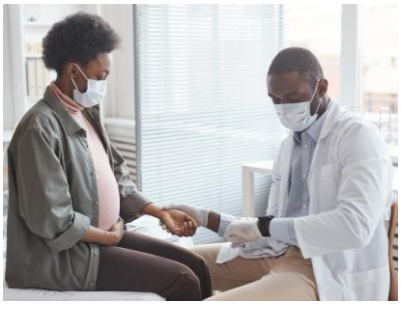
- **Improve prenatal care compliance**

17

17

Benefits of Treatment in Pregnancy

- Prevent withdrawal symptoms, cravings
- Decrease relapse risk
  - Decrease injection drug use (decreased infection risk)
  - Decrease in associated risky behaviors
- Improve adherence with prenatal care, addiction treatment
- Reduce risk of obstetric complications



Treatment in Pregnancy

- Medication-Assisted Treatment (MAT) - recommended
  - Methadone, buprenorphine
- Alternative MAT- continued with counseling
  - Buprenorphine/naloxone, naltrexone
- Non-MAT treatment - not recommended
  - Detoxification/abstinence

"Opioid agonist pharmacotherapy is the recommended therapy …preferable to medically supervised withdrawal because withdrawal is associated with high relapse rates, which lead to worse outcomes." – ACOG

" A pregnant woman with OUD should be offered…methadone or buprenorphine." SAMHSA

ACOG, 2017, NICHD 2017

Methadone

- Full opioid agonist - mu receptor
- Advantages:
  - Established pregnancy/breastfeeding safety
  - Reduce cravings - opioids, cocaine
  - Long duration
  - Higher treatment retention
  - Reduces obstetric and fetal complications (fetal growth restriction, infection, limited prenatal care, and preterm birth)

Jones 2012

Methadone cont.

- Disadvantages
  - Prolonged time to stable does
  - Significant overdose risk
  - Daily treatment at opioid treatment program (OTP)
  - Longer, more severe neonatal withdrawal
  - Pure agonist- will not block other opioids

Wiegand 2015

POLL QUESTION:
What [typically] happens to the methadone dose in pregnancy?

1. Consider decreasing as low as possible
2. Consider increasing it
3. Consider completely tapering off
4. Consider changing to buprenorphine

POLL ANSWER

What [typically] happens to the methadone dose in pregnancy?

2. Dose INCREASES (and often need split, BID dosing)

Methadone Dosing and Clinical Pearls

- Stable methadone before pregnancy → new withdrawal symptoms
- Increased metabolism, volume of distribution → dosage increase
  - Try split dosing!
  - Can occur at any point in pregnancy
- Higher dose may be preferable for optimal care
  - ≥ 60mg of methadone – more likely to remain in treatment

Buprenorphine (Subutex)

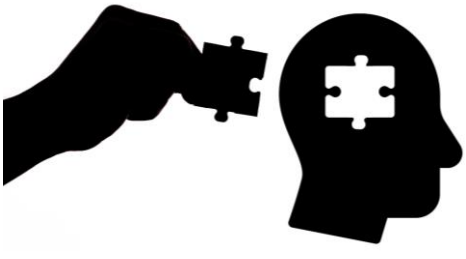
- Partial agonist/antagonist
- Sublingual tab/film, monthly injectable, 6-month implant (non-U.S.)
- Advantages
  - Established pregnancy/breastfeeding safety
  - Lower overdose risk
  - Fewer drug interactions
  - Office-based treatment
  - Shorter, less severe neonatal withdrawal
  - Blocks other opioid effects
  - Long-acting formulations

Wiegand 2015, Zedler 2016

Buprenorphine (Subutex) cont.

- Disadvantages
  - Limited data - long term childhood outcomes
  - Clinical withdraw symptoms required before starting
    - Risk of precipitated withdrawal
  - Less success with polysubstance use disorders
  - Lower treatment retention
  - Less structured environment
    - Some patients need more structure

Structure



Jones 2012

Buprenorphine Dosing and Clinical Pearls

- Dosing - may need increase
- Diversion is real
  - Buprenorphine can be injected, snorted
  - Pregnant patients may feel pressured to share/sell their medication
  - Patient may have more medication on hand
  - Buprenorphine diversion- often used to treat withdrawal in family friends
- Now considered a second “gold standard” for pregnancy treatment

Buprenorphine-Naloxone (Suboxone)

- Naloxone minimally absorbed with correct use
- Advantages:
  - Decreased diversion/misuse
  - Improved insurance coverage
- Disadvantages:
  - Limited data
  - Prescriber training recommends change to monotherapy
- SAMHSA expert panel:
  - Continue/initiate with individual benefit-risk discussion

ACOG 2017, SAMSHA 2018

Naltrexone (Vivitrol)

- Opioid antagonist
- Pill, monthly injection, 5-6-month implant (not U.S.)
- Advantages:
  - Reduces cravings, reduce overdoses
  - Minimal misuse/diversion
  - Office based delivery
- Disadvantages
  - Limited safety data
  - Problematic pain management at delivery
  - Unknown breastfeeding safety

Jones 2013, Jones 2018, SAMHSA 2018

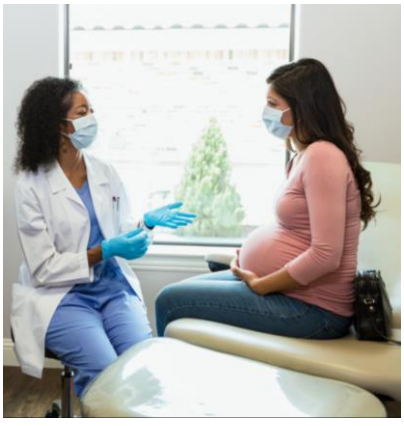
Naltrexone Dosing and Clinical Pearls

- Expert panel recommendation:
  - No agreement on continued use in pregnancy
- Not a first-line treatment primarily due to complete detoxification, relapse risk
- Limited data on naltrexone safety and benefits in pregnant women
- If continued - need a delivery anesthesia plan!

Jones 2013, Jones 2018, SAMHSA 2018

Medically-Assisted Withdrawal (MAW)

- Dosing
  - Stabilize than slow taper
  - Buprenorphine or methadone
- Close medical supervision
  - Ex: inpatient, intensive outpatient
- No long-term outcomes noted (mother or infant)
- Recent studies- no association with fetal death or preterm delivery



Stewart 2013, ACOG 2017

POLL: Medically-assisted withdrawal is the goal.

1. TRUE
2. FALSE

POLL ANSWER

Medically-assisted withdrawal is the goal.
2. FALSE

Medically-Assisted Withdrawal

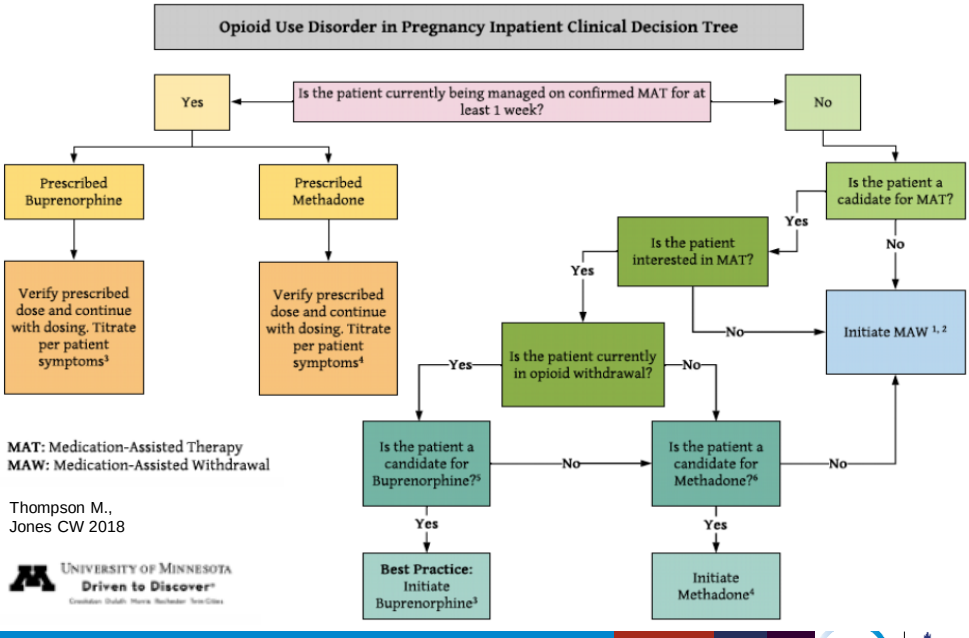
- Advantages
  - Minimize neonatal withdrawal
  - Decreases neonatal care costs
- Disadvantages
  - High relapse rates - up to 90%
  - Overdose risk with relapse
  - Low compliance rates
    - 56% success- no illicit use at delivery
  - Neonatal withdrawal documented
  - No data on long-term maternal outcomes

Stewart 2013, ACOG 2017

Medically-Assisted Withdrawal cont.

- Expert Panel Recommendation
  - NOT recommended in pregnancy
  - MAT is best option
  - Advise pregnant patients that withdrawal during pregnancy increases the relapse risk without clear fetal/neonatal or maternal benefit
- ACOG recommends medically supervised withdrawal ONLY if
  - A woman does not accept treatment with ongoing MAT
  - MAT is unavailable

ACOG 2017, SAMHSA 2018



Thompson M., Jones CW 2018

Patient-Centered Care

- Shared decision-making tool
- Decision=continue or taper pharmacotherapy during pregnancy
  - Standard of care, risks/benefits, reasons likely/not likely to relapse, reasons to take/stop medication
  - 64% continued pharmacotherapy
  - 36% tapered pharmacotherapy
  - 96% felt they had sufficient information to make decisions

Guille 2019

Best Practice: Prenatal Care-Managing Expectations

- OUD and Pregnancy
  - Compliance with prenatal care
  - Communication with MAT providers
  - State laws and reporting
- Obstetric Care
  - Surveillance during pregnancy
  - Pain management
  - Neonatal opioid withdrawal syndrome

Winstock et al. 2008

Best Practice: Prenatal Care cont.

- Preparation for parenting
  - Separate groups for parenting education
  - Pediatrics with NAS experience
  - Lactation consultant
  - Peer recovery support

Winstock et al. 2008

POLL QUESTION: Mandated to report:

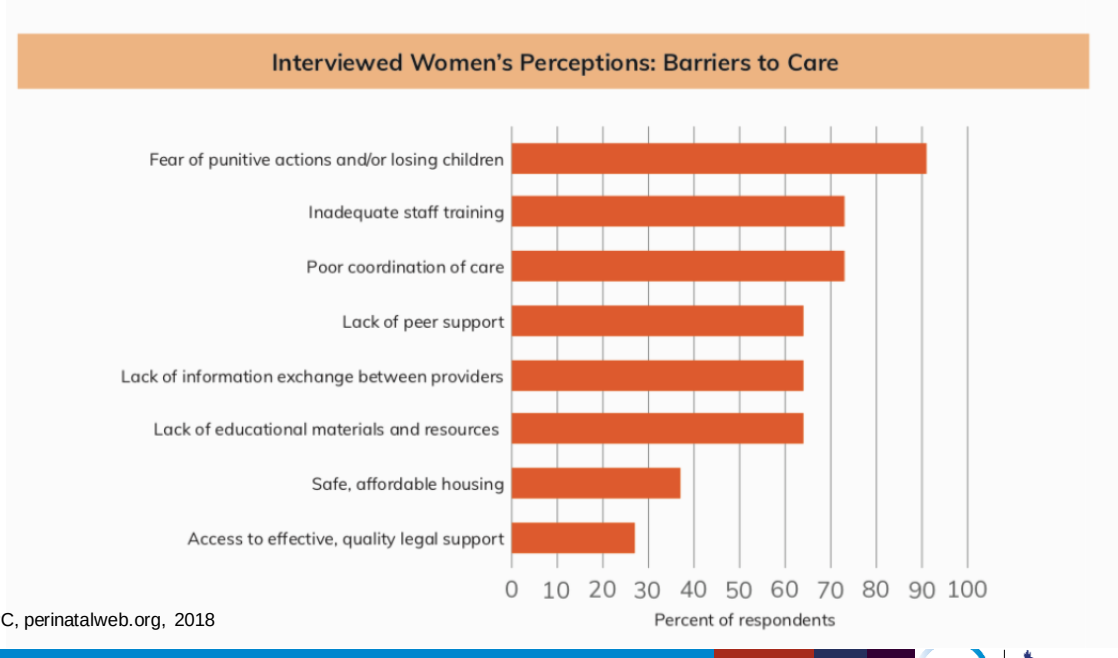
a) All substances of abuse
b) No substances of abuse
c) Alcohol only
d) Marijuana only
e) Opioids (illicit) only
f) Stimulants only
g) c & d
h) c & e
i) e & f
j) None of the above

POLL ANSWER

Mandated to report:
j) None of the above

Legal Challenges

- Conflict in philosophy of care during pregnancy
  - Medical model - Treatment reduces substance use
  - Law enforcement policy - Criminal punishment deters substance use
- Mandatory reporting undermines the patient-provider relationship
  - Women avoid care
  - Providers ignore screening
- Universal drug screening bypasses the conversation and collaboration
- Minnesota
  - Substance use in pregnancy and prenatal child abuse
  - No targeted treatment programs for pregnancy or priority access



WAPC, perinatalweb.org, 2018

Best Practice: Labor and Delivery

- Manage expectations
- Continue outpatient medication
- Early epidural
- Increase pain medication if cesarean section
  - TAP blocks, possible PCA
- Adequate staff education is key
- Avoid drug(s) of choice if prior prescription misuse
- Contingency plan for C/S

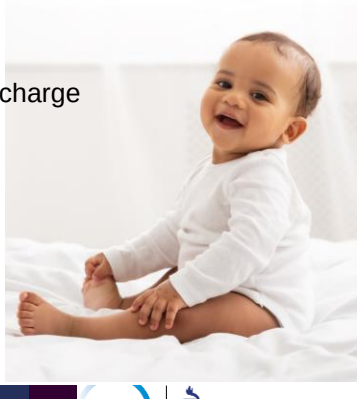
Meyer et al 2007, 2010

Best Practice: Postpartum

- Breastfeeding
  - Minimal transfer of medication
  - Limited ability to reduce neonatal withdrawal treatment - breastfeeding/skin-to-skin
  - ACOG, AAP, ABA supported
  - Hepatitis C - avoid bleeding nipples
  - Contraindications- ongoing illicit use and HIV

Best Practice: Postpartum cont.

- Ask about plans for pregnancy in next year
  - Women with OUD have high rates of unintended pregnancy
- Counsel all patients on contraception options
  - Immediate, easy access to contraceptive of choice before discharge
  - Respect patient autonomy (reproductive justice)
- Screen for new/worsening comorbid mental health disorders before discharge and at postpartum appointment
  - Earlier, more frequent postpartum visits



ACOG 2017, SAMHSA 2018

Neonatal Abstinence Syndrome (NAS)

- Physiologic/neurobehavioral signs of withdrawal in newborn with prenatal exposure to psychotropic substances
- Occurs with tobacco, alcohol, prescription medications, illicit substance
- Not exclusive to opioid exposure

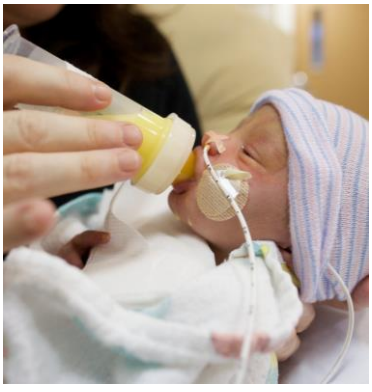
Neonatal Opioid Withdrawal Syndrome (NOWS)

- Neonatal abstinence specifically associated with chronic prenatal opioid exposure
- Exposure to full and partial agonists can cause withdrawal symptoms
- 35-70% opioid-exposed infants develop
- Pathophysiological response to opioid exposure removal
- Patient-centered language
  - Babies are NOT born “addicted”
  - Baby with NAS, NOT “NAS baby”

Patrick 2015, Jansson 2019, Grossman 2019

Neonatal Opioid Withdrawal Syndrome cont.

- Timeline
  - Typically starts 4-7 days after birth
    - Depends on specific prenatal exposure
  - Typical newborn observation minimum 4-5 days
    - Longer than maternal stay!
  - Mean length of hospital stay: 16-20 days



Jansson 2019, Grossman 2019

Finnegan Scoring

SYSTEMS	SIGNS AND SYMPTOMS	SCORE	AM 2	4	6	8	10	12	PM 2	4	6	8	10	12	DAILY WT.
CENTRAL NERVOUS SYSTEM DISTURBANCES	High Pitched Cry	2													
	Continuous High Pitched Cry	3													
	Sleeps < 1 Hour After Feeding	3													
	Sleeps < 2 Hours After Feeding	2													
	Hyperactive Moro Reflex	2													
	Markedly Hyperactive Moro Reflex	3													
	Mild Tremors Disturbed	2													
	Moderate Severe Tremors Disturbed	3													
	Mild Tremors Undisturbed	1													
	Moderate Severe Tremors Undisturbed	2													
	Increased Muscle Tone	2													
	Excoriation (specify area): _____	1													
	Myoclonic Jerks	3													
	Generalized Convulsions	3													
METABOLIC VASOMOTOR/ RESPIRATORY DISTURBANCES	Sweating	1													
	Fever < 101°F (39.3°C)	1													
	Fever > 101°F (39.3°C)	2													
	Frequent Yawning (> 3-4 times/interval)	1													
	Mottling	1													
	Nasal Stuffiness	1													
	Sneezing (> 3-4 times/interval)	1													
	Nasal Flaring	2													
	Respiratory Rate > 60/min	1													
	Respiration Rate > 60/min with Retractions	2													
GASTROINTESTINAL DISTURBANCES	Excessive Sucking	1													
	Poor Feeding	2													
	Regurgitation	2													
	Projectile Vomiting	3													
	Loose Stools	2													
	Watery Stools	3													
SUMMARY	TOTAL SCORE														
	SCORER'S INITIALS														
	STATUS OF THERAPY														

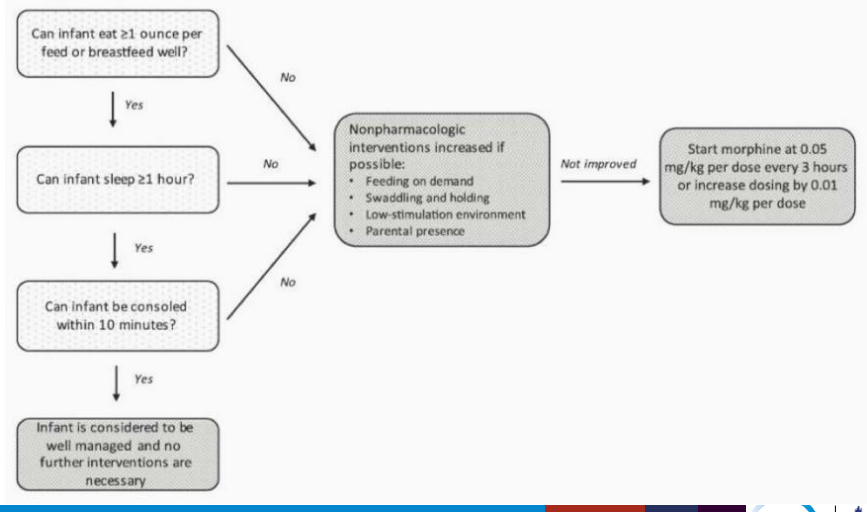
Adapted from Finnegan L. Neonatal abstinence syndrome: assessment and pharmacotherapy. Neonatal Therapy: An update, F. F. Rubaltelli and B. Granti, editors. Elsevier Science Publishers B. V. (Biomedical Division), 1986: 122-146

Scoring

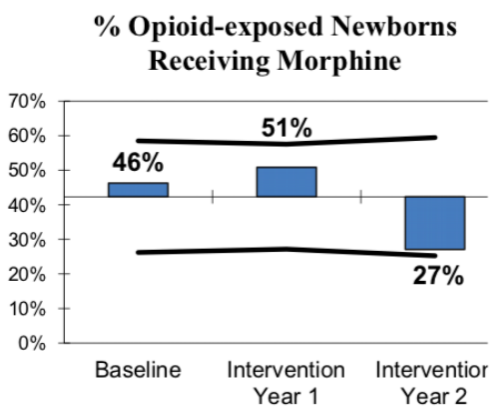
- Within 2 hours of birth
- Every 3-4 hours, before feeding
- Median score non-affected infant: 2.5
- Clinically significant score: 8
- Treat is serial score is 8 or higher
- Treatment is supportive, then pharmacologic

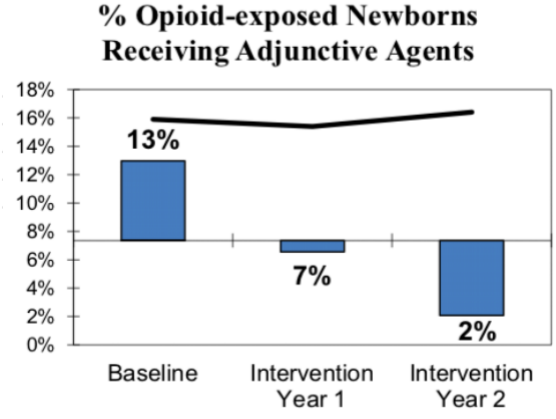
Jansson 2019, Grossman 2019, aap.org

Eat, Sleep, Console Model



Eat, Sleep, Console Model cont.





Holmes 2016

Long-Term Childhood Outcomes

- No consensus on intrauterine exposure to buprenorphine/ methadone and childhood development
- Research has not found increased birth defects or adverse long-term neurodevelopment impact
- Toddlers exposed prenatally to methadone or buprenorphine had no more problems with developmental tasks than those from normative sample of children of mothers with OUD

For questions regarding content:

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Podcast:
The Addiction
Connection

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