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# Supporting Substance Exposed Infants: Helping the Medicine Go Down

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# Disclosure

- I have no relevant financial disclosures
- Hub
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# Objectives

1. Define neonatal abstinence syndrome(NAS)/neonatal opioid withdrawal syndrome(NOWS)
2. Describe the rationale for medical management of NAS/NOWS
3. Describe the impact of social determinants on infant developmental outcomes.

# Definitions

## NAS:

- Withdrawal in newborns from medications or drug exposure in utero
- Can include
  - Tobacco
  - Anti-depressants
  - Anti anxiety medicines
  - Stimulants
  - Methamphetamines
  - Cocaine
  - Inhalants
  - Alcohol

## NOWS

- Subsection of NAS
- Newborn withdrawal from opioid exposure during pregnancy
  - Opioid pills(prescribed or not)
  - Heroin
  - Fentanyl
  - Methadone
  - Subutex(buprenorphine)
- 60-90% of babies exposed to opioids in pregnancy will have NOWS

# Signs of NAS/NOWS


- High pitched cry / fussiness
- Shaking or jitteriness
- Trouble settling down to sleep
- Stuffy nose and sneezing
- Frequent yawning
- Having a hard time feeding
- Stiff arms and legs
- Vomiting and diarrhea
- Fast breathing and heart rate
- Fever



# When to Treat?


**NEONATAL ABSTINENCE SCORING SYSTEM**

\* Remember, scoring should reflect baby's behavior/activity from feeding to feeding.\*



System	Signs and Symptoms	Date/Time	Dose								
<b>Central Nervous System Disturbance</b>	Crying: Excessive high pitched < 5 min.		2								
	Crying: Continuous high pitched > 5 min.		3								
	Sleeps < 1 hour		3								
	Sleeps < 2 hours after feeding		2								
	Sleeps < 3 hours after feeding		1								
	Hyperactive Moro reflex		2								
	Markedly hyperactive Moro reflex		3								
	Mild tremors: Undisturbed		3								
	Moderate-severe tremors: Undisturbed		4								
	Mild tremors: Disturbed		1								
	Moderate-severe tremors: Disturbed		2								
	Increased muscle tone		1								
	<b>Metabolic, Vasomotor, and Respiratory Disturbances</b>	Excoriation (specify area)		1							
Myoclonic Jerks (twitching/jerking of limbs)			3								
Generalized convulsions			5								
Sweating			1								
Fever (99° F - 101° F)			1								
Fever > 101° F			2								
Frequent yawning (>3 times/ scoring interval)			1								
Mottling			1								
Nasal stuffiness			1								
<b>Gastro-Intestinal Disturbances</b>	Sneezing (>3 times/scoring interval)		1								
	Nasal flaring		2								
	Respiratory rate (>60/min.)		1								
	Respiratory rate (>80/min. with retractions)		2								
	Excessive sucking		1								
	Poor feeding		2								
	Regurgitation (≥ 2 times/scoring interval)		2								
Projectile vomiting		3									
<b>Total Score</b>	Loose stools		2								
	Watery stools		3								
	Initials of Scorer										

Reference: Finnegan LP/ Neonatal abstinence syndrome: Assessment and pharmacotherapy. In Nelson, N, editor. Current therapy in neonatal-perinatal medicine. 2 ed. Ontario: BC Decker; 1990.



**Wheaton Franciscan**  
 Elmbrook Memorial Campus  
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**Neonatal Abstinence Scoring System**

104475 12/2013 R6

PATIENT LABELS MUST BE PLACED HERE ON ALL PAGES (PARTS) - SIDES OR FOLD-OUT (PANELS) THAT THIS BOX APPEARS ON.

## Finnegan Scale

- Care provider assigns points for different signs and symptoms of NAS
- Points are added up into a score
- The individual scores not as important as trend over time
- Treatment with morphine indicated when three scores higher than 8 or two scores higher than 12 in a row

# When to Treat

Eat, Sleep, Console: emerging model since 2016

- Parents and care providers partner to ensure that baby can eat, sleep and console
- Emphasis on non-pharmacologic interventions to make sure that baby can:
  - Eat at least 1 oz or breastfeed well
  - Sleep for more than 1 hour at a time
  - Console (settled down) within 10 minutes
- Creates a partnership with open communication with care team and families

# Social Determinants of Health

- We know a lot of the medicine behind managing NOWS in the hospital
- We do not know much about long term health and educational outcomes
- We know BIPOC(Black and Indigenous People of Color) are disproportionately affected



# Social Determinants of Health



# Strengthening Families

- We can achieve a decline in NOWS if we continue to focus on the family unit
- Cocoon with resources
  - Peer Recovery Support: WI Voices for Recovery
  - Safe Communities Madison-Dane County
  - Meta House
  - Birth to 3
- To move forward we must strengthen economic support for families, promote antiracist teaching, ensure a strong start for children, connect with community resources

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