

# PA PQC

Pennsylvania Perinatal Quality Collaborative

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PA PQC QI Collaborative Meeting  
NAS Definitions, Diagnosis, and Coding  
July 14, 2021

# Agenda

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- **PA PQC Future Directions**
- **NAS Definitions, Diagnosis, and Coding**

Greg A. Barretto, Jr., MD, MS  
Regional Medical Director | Director of  
Outreach  
Division of Newborn Medicine

Carol Gilmour, MD, MPH  
Clinical Assistant Professor of Pediatrics  
Division of Newborn Medicine

Gysella Muniz, MD  
Regional Director of Quality  
Newborn Care  
Director of Children's Newborn  
Nursery Service

UPMC Magee Womens Hospital | UPMC Children's Hospital of Pittsburgh

- **Discussion Q&A**

# PA PQC Future Directions

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## 2021 PA PQC Initiatives

MMRC

PQC

*No Quality without Equity*

**PA PQC**

Pennsylvania Perinatal Quality Collaborative

*A Primary Focus:*  
**Maternal OUD & NAS**

**Immediate Postpartum LARC**

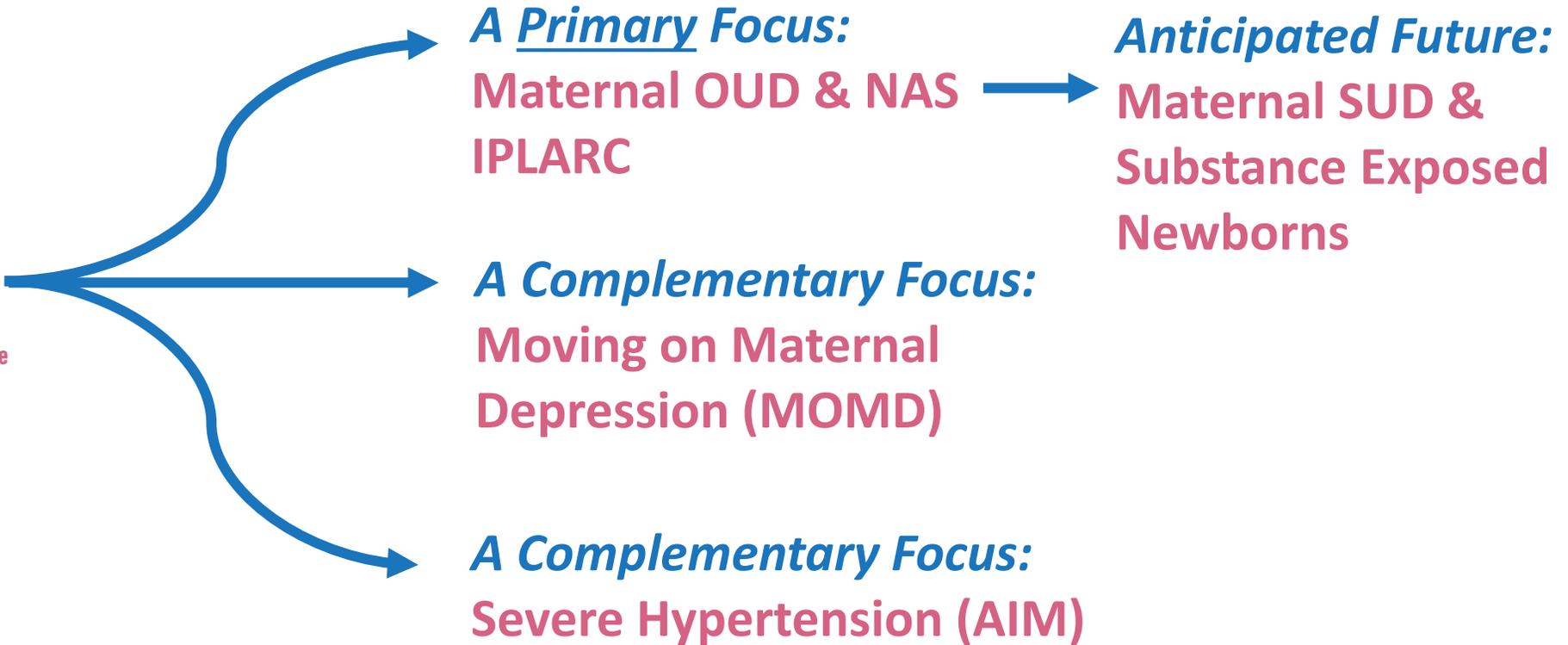
*A Complementary Focus:*  
**Moving on Maternal Depression (MOMD)**

*A Complementary Focus:*  
**Severe Hypertension (AIM)**



## PA PQC Initiatives

*No Quality without Equity*



# Work Groups

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## *Positioning the PQC for Future Expansion*

**Groups:** *Advisory, SUD Work Group, SEN Work Group*

### **Work Group Scope:**

- Update and Expand OUD and NAS Driver Diagrams
- Refine and Expand Related Structure, Process, and Outcome Measures

**Timing:** *Mid-August to Mid-October*

**Time Commitment:** At least one virtual meeting per month

### **To Join:**

- *Include PA PQC team representatives via the quarterly NAS and OUD surveys (Due 7/30)*
- *For stakeholders: <https://www.surveymonkey.com/r/97PNFCY>*

# NAS: DEFINITION, DIAGNOSIS AND CODING

**Greg A. Barretto, Jr., MD, MS**  
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# Objectives

- Review the definition, diagnosis and assessment of Neonatal Abstinence Syndrome (NAS)
- Understand the importance of having a standard case definition of NAS.
- Reflect on how your institution defines NAS.
- Identify and understand the different ICD-10-CM codes for NAS.

# Neonatal Abstinence Syndrome (NAS)

- withdrawal in a newborn shortly after birth from in utero exposure to opioids or non-opioid substances
  - nicotine, antidepressants (SSRIs), benzodiazepines, stimulants (amphetamines, cocaine), opioids (methadone, buprenorphine, morphine, oxycodone, heroin)
- result of the sudden discontinuation of fetal exposure to substances that were used by the mother during pregnancy
- more recently called Neonatal Opioid Withdrawal Syndrome (NOWS) if prenatal exposure is limited to opioids

# NAS: DIAGNOSIS

- Clinical diagnosis is based:
  - history (or suspected history) of maternal opioid use disorder
  - positive maternal or infant urine toxicology screening for opioids
  - clinical findings that are consistent with NOWS
- NOT defined or diagnosed by the need for pharmacotherapy but by the cardinal signs of withdrawal.

# NOWS: Clinical Presentation

- Sleep and wake cycle disturbances
  - fragmented sleep with short sleep cycles
  - difficulty maintaining an alert state
- Alterations in tone or movement
  - hypertonicity
  - tremors
  - jitteriness

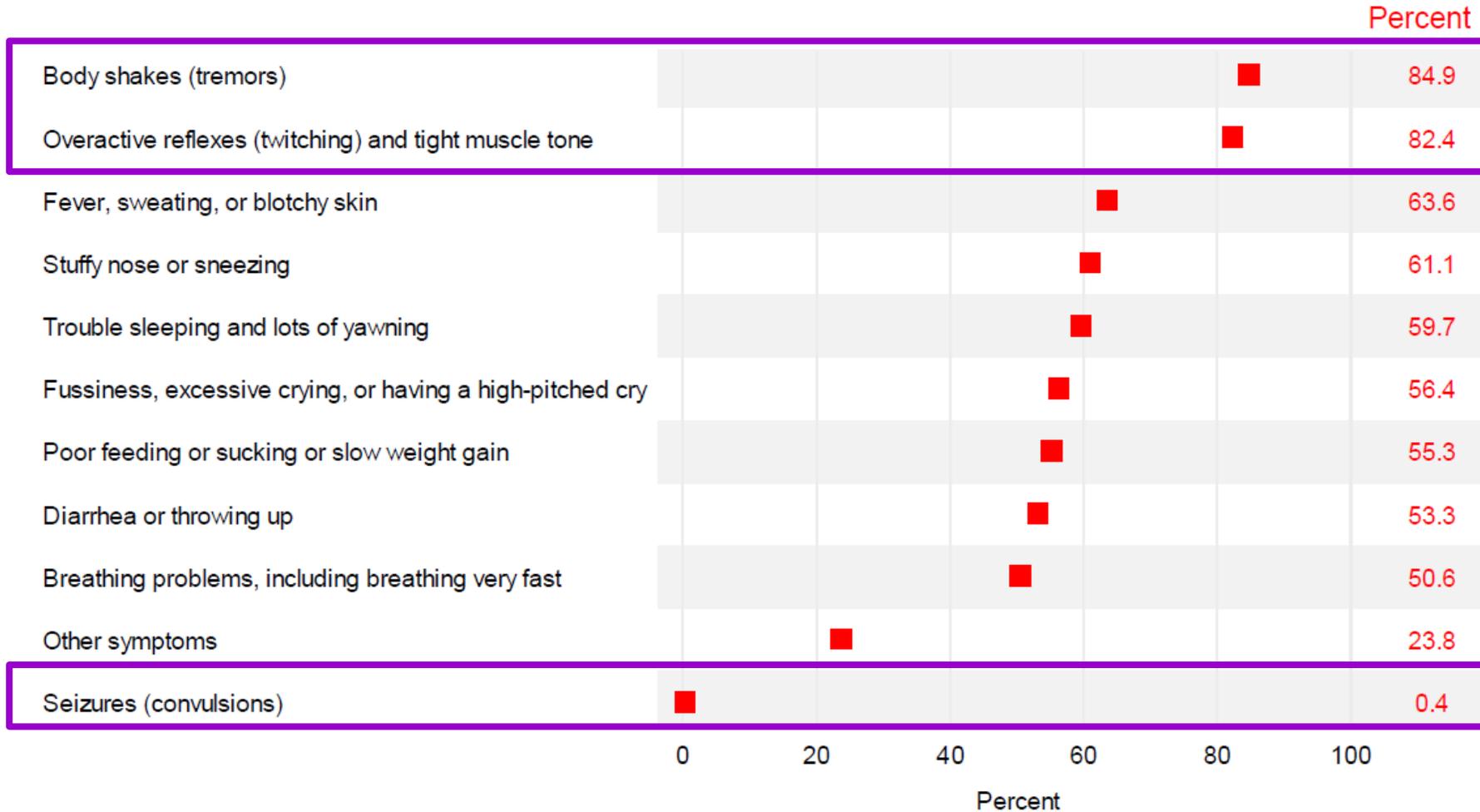
# NOWS: Clinical Presentation

- Autonomic dysfunction
  - sweating
  - sneezing
  - mottling
  - fever or unstable temperature
  - nasal stuffiness
  - yawning

# NOWS: Clinical Presentation

- Easy overstimulation, sensitivity, or hyperarousal resulting in irritability and crying with any stimuli, or rarely seizures
- Difficulties with feeding (suck-swallow incoordination and oral hypersensitivities) resulting in poor weight gain, tachypnea, gassiness, vomiting, and loose stools

# NAS: Clinical Presentation



# NAS: How do we approach it?

- Maternal Care
- Neonatal Assessment
  - Modified Finnegan scoring tool
  - Eat Sleep Console: Scoring tool + standardized non-pharma care interventions
- Neonatal Therapy
  - Non-Pharmacologic approach
  - Pharmacologic approach



# NAS: Assessment

- assessment of an infant at risk for NAS centers on their ability to eat, sleep and be consoled
- can be achieved either through:
  - Modified Finnegan Scoring Tool
  - Eat, Sleep, Console Tool (ESC)



# Modified Finnegan Scoring Tool

| Central Nervous System Disturbances  | Metabolic, Vasomotor, and Respiratory Disturbance                      | Gastrointestinal Disturbance                 |
|--|--|--|
| Excessive High Pitched Crying – 2<br>Continuous High Pitched Crying - 3                            | Sweating – 1   | Excessive Sucking – 1                        |
| Sleep < 1 Hr After Feeding – 3<br>Sleep < 2 Hr After Feeding – 2<br>Sleep < 3 Hr After Feeding – 1 | Fever < 101 (37.2 – 38.3 C) – 1<br>Fever > 101 (38.4 C) – 2            | Poor feeding – 2                             |
| Hyperactive Moro Reflex – 2<br>Markedly Hyperactive Moro – 3                                       | Frequent Yawning (>3) – 1  | Regurgitation – 2<br>Projective Vomiting – 3 |
| Mild Tremors Disturbed – 1<br>Mod – Severe Tremors Disturbed – 2                                   | Mottling – 1   | Loose Stools – 2<br>Watery Stools – 3        |
| Mild Tremors Undisturbed – 3<br>Mod – Sev Tremors Undisturbed - 4                                  | Nasal Stuffiness – 1   |  |
| Increased Muscle Tone - 2  | Sneezing (>3) – 1  |  |
| Excoriation – 1  | Nasal Flaring – 2  |  |
| Myoclonic Jerk – 3   | Respiratory Rate (>60) – 1<br>Respiratory Rate (>60 w Retractions) – 2 |  |
| Seizures – 5   |  |  |

# Modified Finnegan Scoring Tool

- The score of 8 appears to be derived from the following quote from Finnegan's original 1975 article:
  - *"The infant with a score of 7 or less was not treated with drugs for the abstinence syndrome because, in our experience, he would recover rapidly with swaddling and demand feedings. Infants whose score was 8 or above were treated pharmacologically."*<sup>1</sup>
- The score of 8 was chosen from 1 institution's experience and has been adopted by most institutions nationwide.<sup>2</sup>

1. Finnegan LP, Connaughton JF Jr., Kron RE, Emich JP. Neonatal abstinence syndrome: assessment and management. *Addict Dis.* 1975;2(1-2):141-158

2. Mehta A, Forbes KD, Kuppala VS. Neonatal abstinence syndrome management from prenatal counseling to postdischarge follow-up care: results of a national survey. *Hosp Pediatr.* 2013;3(4):317-323

# What is Eat, Sleep, Console?

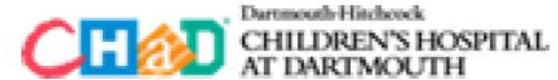
- Novel, nonintrusive, safe approach to assess infants with NAS
- Focused on infant's ability to function regardless of the withdrawal symptoms.
- Mother and Non-Pharm care = FIRST LINE TREATMENT
- Originally established by Grossman et al. at (Yale NHCH)
- Northern New England PQIN (New Hampshire, Vermont, Maine)
- Neonatal Quality Improvement Collaborative of Massachusetts (neoQIC)



# ESC Assessments

- Every 3-4 hours (at times of feedings/cares)
- Encompass the last 3-4 hours since the prior assessment
- Feedback from all caregivers
- Does not require the infant to be removed from the mother to complete





|   |  |  |  |  |
|---|--|--|--|--|
| <b>Poor eating due to NAS? Yes / No</b>                     |  |  |  |  |
| <b>SLEEPING</b>   |  |  |  |  |
| <b>Sleep &lt; 1 hr due to NAS? Yes / No</b>                 |  |  |  |  |
| <b>CONSOLING</b>  |  |  |  |  |
| <b>Unable to console within 10 min due to NAS? Yes / No</b> |  |  |  |  |
| <b>Soothing support used to console infant:</b>             |  |  |  |  |
| Soothes with little support: 1                              |  |  |  |  |
| Soothes with some support: 2                                |  |  |  |  |
| Soothes with much support or does not soothe in 10 min: 3   |  |  |  |  |
| <b>PARENTAL / CAREGIVER PRESENCE</b>                        |  |  |  |  |
| <b>Parental / caregiver presence since last assessment:</b> |  |  |  |  |
| No parent present: 0  |  |  |  |  |
| 1 - 59 minutes: 1   |  |  |  |  |
| 1 hr - 1 hr 59 min: 2                                       |  |  |  |  |
| 2 hr - 2 hr 59 min: 3                                       |  |  |  |  |
| 3 hr+: 4  |  |  |  |  |
| <b>MANAGEMENT DECISION</b>                                  |  |  |  |  |
| <b>Recommend a Team Huddle? Yes / No</b>                    |  |  |  |  |
| <b>Management decision:</b>                                 |  |  |  |  |
| Optimize non-pharm care: 1                                  |  |  |  |  |
| Initiate medication treatment: 2                            |  |  |  |  |
| Other (please describe):                                    |  |  |  |  |
| <b>NON-PHARM INTERVENTIONS</b>                              |  |  |  |  |
| <b>Rooming-in: Increased / Reinforced</b>                   |  |  |  |  |
| <b>Parental presence: Increased / Reinforced</b>            |  |  |  |  |
| <b>Skin-to-skin contact: Increased / Reinforced</b>         |  |  |  |  |
| <b>Holding by caregiver/cuddler: Increased / Reinforced</b> |  |  |  |  |
| <b>Swaddling: Increased / Reinforced</b>                    |  |  |  |  |
| <b>Optimal feeding: Increased / Reinforced</b>              |  |  |  |  |
| <b>Non-nutritive sucking: Increased / Reinforced</b>        |  |  |  |  |
| <b>Quiet environment: Increased / Reinforced</b>            |  |  |  |  |
| <b>Limit visitors: Increased / Reinforced</b>               |  |  |  |  |
| <b>Clustering care: Increased / Reinforced</b>              |  |  |  |  |

|  |   |
|--|---|
| Mode: <a href="#">Accordion</a> <a href="#">Expanded</a> <a href="#">View All</a>  |   |
| <a href="#">1m</a> <a href="#">5m</a> <a href="#">10m</a> <a href="#">15m</a> <a href="#">30m</a> <b><a href="#">1h</a></b> <a href="#">2h</a> <a href="#">4h</a> <a href="#">8h</a> <a href="#">24h</a> |   |
| Based On: 0700   <a href="#">Reset</a> <a href="#">Now</a>   |   |
| <b>Admission (Current...)</b>  |   |
| 5/5/17   |   |
| <b>1000</b>  |   |
| <b>Eating</b>  |   |
| Poor feeding due to NAS  | <input type="text" value=""/> <a href="#">📄</a> <a href="#">🔍</a> |
| <b>Sleeping</b>  |   |
| <1 hr after feeding due to NAS   |   |
| <b>Consolability</b>   |   |
| Infant's consolability rating  |   |
| Unable to console within 10 minutes  |   |
| Caregiver(s) providing the consolability   |   |
| <b>Parental Presence</b>   |   |
| Parental presence since last assessment  |   |
| <b>Cuddler Present</b>   |   |
| Cuddler present  |   |
| <b>Team Huddle</b>   |   |
| Team huddle  |   |

# DATA: HOW IT CAN MAKE US WORK HARDER, INSTEAD OF SMARTER!



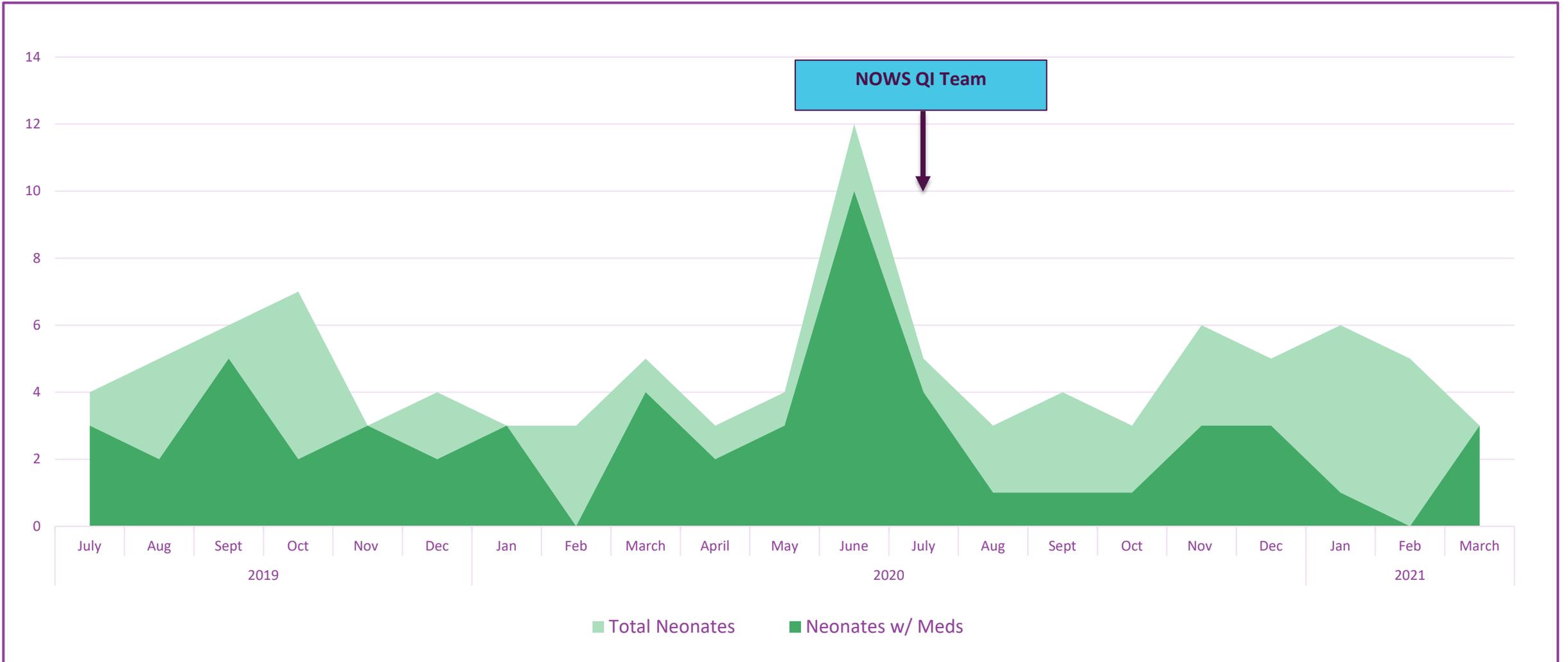
# Quality Improvement... the first few minutes

- *How are we doing?*

- *How do we know?*

- *How can we do better?*

# Newborn NOWS Process Improvement



## Infants ≥ 35 wk with NAS:

- Decrease hospital length of stay by 1 day by June 30, 2021.
- Decrease initiation of pharmacologic therapy by 20% by June 30, 2021.

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by 1 day by June 30, 2021.  
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by 20% by June 30, 2021.  
- Decrease initiation of pharmacologic therapy by 20% by June 30, 2021.

## Improve identification and use standardize coding and documentation for substance exposed newborns and infants diagnosed with Neonatal Abstinence Syndrome (NAS)

Improve identification and use standardize coding and documentation for substance exposed newborns and infants diagnosed with Neonatal Abstinence Syndrome (NAS)

- Standardize definition of Substance Exposed Newborns (SEN)
- Standardize definition of NAS
- Standardize coding and documentation for SEN and NAS

Improve understanding of Substance use Disorder (SUD) and NAS

- Engagement with WHSL Perinatal SUD Committee (Cindy Huhn and Sharon Sabella)
- Educate staff regarding NAS
- Provide family education about NAS

Improve identification and use standardize coding and documentation for substance exposed newborns and infants diagnosed with Neonatal Abstinence Syndrome (NAS)

- Enhance existing education on the use of the modified Finnegan scoring system
- Improve reliability with

- Standardize definition of Substance Exposed Newborns (SEN)
- Standardize definition of NAS
- Standardize coding and documentation for SEN and NAS

Standardize pharmacologic management for all SEN and infants diagnosed with NAS

- Adopt and adapt the current UPMC CHP NAS Clinical Guidelines
- Explore the safe use of clonidine as secondary
- Enhance existing education on the use of pharmacologic management for staff therapy

Ensure the safe discharge of mother and baby

- Engagement with WHSL Perinatal SUD Committee (Cindy Huhn and Sharon Sabella)
- Partner with families to establish an inpatient “plan of safe care”
- Partner with families to establish an outpatient “plan of safe care”

# PA Case Management System (iCMS)

- Internet Case Management System (iCMS)
- Goal... providing a single comprehensive data system:
  - support newborn metabolic, hearing, and critical congenital heart defects (CCHD) screening follow-up programs
  - provides fast and accurate identification of infants and their newborn screening results

# PA iCMS Implementation: NAS

January 2018 – NAS becomes a reportable condition to the PA DOH

- NAS cases...
  - should be reported within 4 days of discharge or within 28 days of life, whichever comes first
  - include **confirmed and probable** cases using clinical and laboratory criteria defined in the Council of State and Territorial Epidemiologists' (CSTE) NAS Standardize Case Definition
  - It is recommended the **P96.1** be the discharge code for neonates with clinical signs of withdrawal **and** confirmed neonatal or maternal laboratory results or maternal history

# iCMS: NAS Reporting Form

## Patient Information

\* Reporting Date

\* Reporting Facility/Midwife

\* Medical Record #

Initial FP #

\* Infant's Legal Last Name

\* Infant's Legal First Name

\* Infant's DOB

\* Gender

\* Birth Order

Apgar Score 1 minute

Apgar Score 5 minutes

\* Mother's First Name

\* Mother's Last Name

\* Mother's DOB

\* Location of Infant Care (check all that apply)

Nursery  Transfer  Outpatient

NICU  Readmission

Principle Source of Payment

# iCMS: NAS Reporting Form

## Neonate Assessment Scoring (complete all that apply, at least one)

\* Finnegan highest Score

\* Modified Finnegan highest score

\* None

\* Other

\* If Other, please specify the scoring method and the score

# iCMS: NAS Reporting Form

**Infant Status**

**Medications or Therapy Used to Treat Infant (check all that apply)**

|   |  |   |
|---|--|---|
| <input type="checkbox"/> Clonidine      | <input type="checkbox"/> Methadone     | <input type="checkbox"/> Other drug               |
| <input type="checkbox"/> Chlorpromazine | <input type="checkbox"/> Morphine      | <input type="checkbox"/> Nonpharmacologic therapy |
| <input type="checkbox"/> Diazepam       | <input type="checkbox"/> Phenobarbital | <input type="checkbox"/> No treatment             |

**\* Infant Signs/Symptoms of Withdrawal (check all that apply)**

|  |  |   |
|--|--|---|
| <input type="checkbox"/> Body shakes (tremors)         | <input type="checkbox"/> Poor feeding (including poor or excessive suck) | <input type="checkbox"/> Loose stools                     |
| <input type="checkbox"/> Seizures (convulsions)        | <input type="checkbox"/> Tachypnea                                       | <input type="checkbox"/> Vomiting                         |
| <input type="checkbox"/> Hyperactive Moro reflex       | <input type="checkbox"/> Fever   | <input type="checkbox"/> Nasal congestion                 |
| <input type="checkbox"/> Myoclonus (including hiccups) | <input type="checkbox"/> Blotchy skin                                    | <input type="checkbox"/> Sneezing                         |
| <input type="checkbox"/> Hypertonia                    | <input type="checkbox"/> Poor sleep                                      | <input type="checkbox"/> Skin abrasions or excoriation    |
| <input type="checkbox"/> High-pitched cry              | <input type="checkbox"/> Lots of yawning                                 | <input type="checkbox"/> Other symptoms attributed to NAS |

**\* If other, please specify**



# iCMS: NAS Reporting Form

## Laboratory Testing Performed

\* Was laboratory testing of neonate for substance exposure performed?

\* If yes, what was the source of the lab sample?

\* If other, please specify

\* If positive results, which drug(s) did the infant test positive for?



# iCMS: NAS Reporting Form

## Infant's Discharge Plan

\* Was a notification made to Childline?

\* Was a plan of safe care initiated?

\* If yes, Contact Name for plan of safe care:

\* If yes, Contact Phone Number for plan of safe care: ( ) -   
Extension

\* Who was the baby referred to post-discharge? (check all that apply)

|   |   |  |
|---|---|--|
| <input type="checkbox"/> Early Intervention     | <input type="checkbox"/> Pediatrician experienced in working with NAS | <input type="checkbox"/> Developmental assessment clin |
| <input type="checkbox"/> Home visiting services | <input type="checkbox"/> High-risk infant follow-up clinic            | <input type="checkbox"/> Other                         |
| <input type="checkbox"/> Medical home           |   |  |

\* If other, please specify

\* Infant discharge date

\* Who was the infant discharged to?

\* If other, please specify.

# iCMS: NAS Reporting Form

## PCP Information

Infant's PCP

Name  
Address  
City, State, Zip  
Phone #  
Fax #

PCP Name

Address 1

Address 2

City

State

Zip Code

Phone # ( ) -

Fax # ( ) -

Email

# iCMS: NAS Reporting Form

## Mother's Discharge Plan

Did the mother's discharge plan include referrals to any of the following? (check all that apply)

- Continued MAT treatment
- Parenting support
- Other behavioral health services
- Care for substance use
- Community support programs
- Other
- Home visitation services

\* If Other, please specify

# iCMS: NAS Reporting Form

## Antenatal Maternal Drug Use

Evidence of any maternal drug use in any medical record (mother or infant)?

Was the mother receiving MAT during pregnancy?

- Maternal drugs used during antenatal period (check all that apply)
- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Alcohol/ethanol                     | <input type="checkbox"/> Gabapentin              | <input type="checkbox"/> Methamphetamine      |
| <input type="checkbox"/> Amphetamines                        | <input type="checkbox"/> Hallucinogens/inhalants | <input type="checkbox"/> Morphine             |
| <input type="checkbox"/> Antidepressants                     | <input type="checkbox"/> Heroin                  | <input type="checkbox"/> Naltrexone           |
| <input type="checkbox"/> Antipsychotics                      | <input type="checkbox"/> Hydrocodone             | <input type="checkbox"/> Opiates              |
| <input type="checkbox"/> Barbiturates                        | <input type="checkbox"/> Hydromorphone           | <input type="checkbox"/> Oxycodone            |
| <input type="checkbox"/> Benzodiazepines                     | <input type="checkbox"/> Hydromorphone           | <input type="checkbox"/> Phencyclidine        |
| <input type="checkbox"/> Buprenorphine (Subutex or Suboxone) | <input type="checkbox"/> Kratom                  | <input type="checkbox"/> Propoxyphene         |
| <input type="checkbox"/> Bupropion (e.g. Wellbutrin)         | <input type="checkbox"/> Marijuana/hash          | <input type="checkbox"/> Tobacco/e-cigarettes |
| <input type="checkbox"/> Cocaine                             | <input type="checkbox"/> Methadone               | <input type="checkbox"/> Tramadol             |
| <input type="checkbox"/> Codeine                             | <input type="checkbox"/> Meperidine              | <input type="checkbox"/> Other                |
| <input type="checkbox"/> Fentanyl                            |  |   |

\* If Other, please specify

Relating only to antenatal opioid use, indicate mother's treatment received during delivery and/or postpartum

- |  |                                       |                                |
|--|---------------------------------------|--------------------------------|
| <input type="checkbox"/> Methadone                           | <input type="checkbox"/> No treatment | <input type="checkbox"/> Other |
| <input type="checkbox"/> Buprenorphine (Subutex or Suboxone) | <input type="checkbox"/> Unknown      |                                |

\* If Other, please specify

# iCMS: Which cases do we report?

- **confirmed and probable cases** identified using clinical and laboratory data as defined in the Council of State and Territorial Epidemiologists' (CSTE) NAS Standardized Case Definition
- **suspect cases** are NOT reported
- **Not limited** to infants treated with pharmacologic therapy. Report infants treated with non-pharmacologic therapy that meet the definition of NAS.

# CSTE: Case Definition

Tier 1. Reporting to PA DOH based on case identification using clinical record.

| CRITERION  | CONFIRMED | PROBABLE | SUSPECT |
|--|-----------|----------|---------|
| <b>CLINICAL EVIDENCE</b>                                     |           |          |         |
| <i>Neonate</i>   |           |          |         |
| Diagnoses or Chief complaint of NAS                          | •         |          |         |
| Clinical presentation of NAS (≥ 3 signs)                     |           | •        |         |
| <i>Maternal: chronic drug use 4 weeks prior to delivery</i>  |           |          |         |
| opioid, benzodiazepines or barbiturate                       |           |          |         |
| non-opioid, non-benzodiazepines or non-barbiturate           |           |          |         |
| unknown drug type  |           |          |         |
| <b>LABORATORY EVIDENCE</b>                                   |           |          |         |
| <i>Neonate</i>   |           |          |         |
| Positive   | •         | •        |         |
| Absent or Unknown  |           |          |         |
| <i>Maternal: blood or urine</i>                              |           |          |         |
| Positive   |           |          |         |
| Positive: non-opioid, non-benzodiazepines or non-barbiturate |           |          |         |
| Absent or Unknown  |           |          |         |

# CSTE: Case Definition

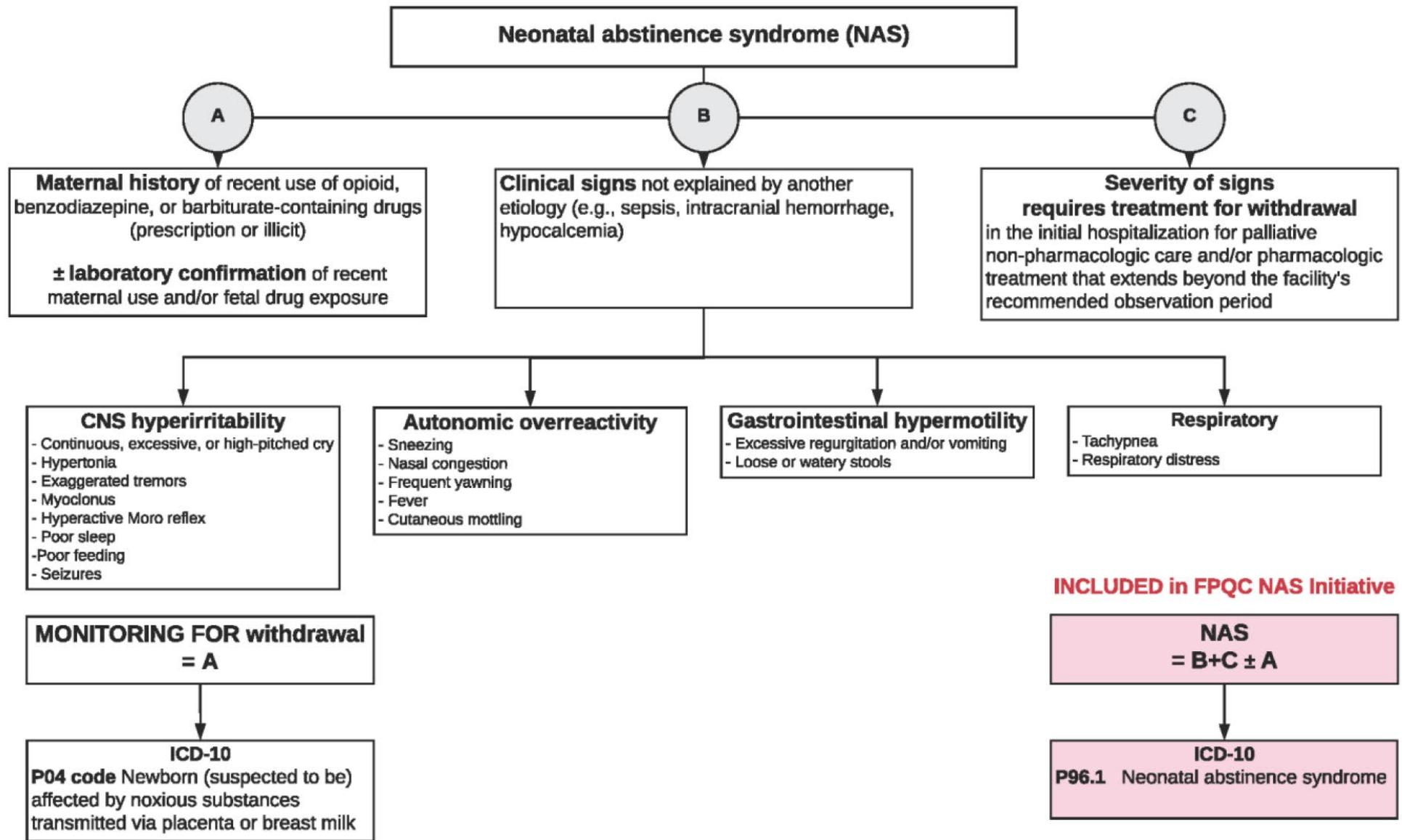
Tier 2. Reporting based on administrative data (e.g. payer claims) using ICD-10-CM.

| CRITERION  | CONFIRMED<br>or PROBABLE | SUSPECT |   |   |
|--|--------------------------|---------|---|---|
| <b>CODING OF THE NEONATE</b>                                   |                          |         |   |   |
| <i>Confirmatory diagnostic coding</i>                          |                          |         |   |   |
| P96.1 NAS  | ●                        |         |   |   |
| <i>Suspect diagnostic code</i>                                 |                          |         |   |   |
| P04.14 Newborn affected by maternal use of opiates             |                          | ●       |   |   |
| P04.17 Newborn affected by maternal use of sedatives-hypnotics |                          |         | ● |   |
| P04.1A Newborn affected by maternal use of anxiolytics         |                          |         |   | ● |



# CSTE: Reporting Criteria?

| CRITERION   | NAS TIER 1:<br>CLINICAL RECORDS | NAS TIER 2:<br>ADMINISTRATIVE DATA |
|---|---------------------------------|------------------------------------|
| <u><i>Clinical Criteria</i></u>   |                                 |                                    |
| Hospitalized NEONATE (< 28 days) with clinical signs consistent with NAS.   | ●                               |                                    |
| Hospitalized NEONATE whose healthcare record contains information (diagnosis, chief complaint or discharge code) about suspected NAS.           | ●                               | ●                                  |
| NEONATE in a residential pediatric recovery center whose healthcare record contains information about suspected NAS.                            | ●                               | ●                                  |
| NEONATE whose healthcare record contains information about in utero exposure to opioids, benzodiazepines, or barbiturates.                      | ●                               | ●                                  |
| <u><i>Laboratory Criteria</i></u>   |                                 |                                    |
| Positive NEONATAL: opioids, benzodiazepines, or barbiturates, or their metabolites.   | ●                               |                                    |
| Positive MATERNAL: opioids, benzodiazepines, or barbiturates, or their metabolites in blood or urine collected up to 4 weeks prior to delivery. | ●                               |                                    |



# CHALLENGES IN DIAGNOSTIC CODING OF NEONATAL DRUG EXPOSURE



# Purpose of DIAGNOSIS Codes

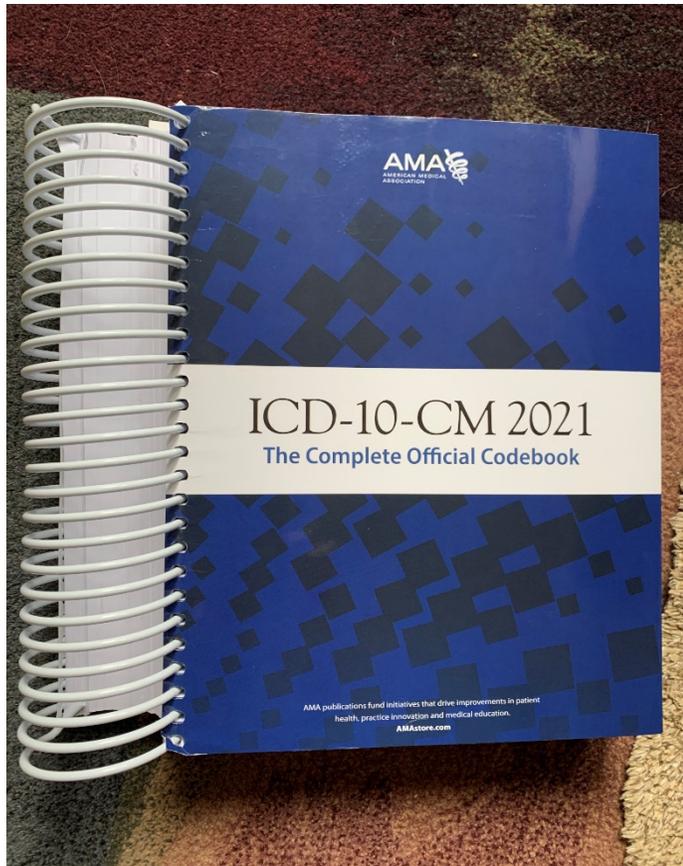
- Standardized summary of patient conditions
- Standardized for diagnosis-specific statistical analyses
  - Public health (M&M): global
  - Health services research (cost, visits/service utilization)
  - Research databases and funding
- Prediction and planning for healthcare needs
- Required to support professional and facility billing
  - Establish medical necessity of billed service(s)
  - Must be supported by documentation
- Quality metrics, Pay-for-Performance, Contracting



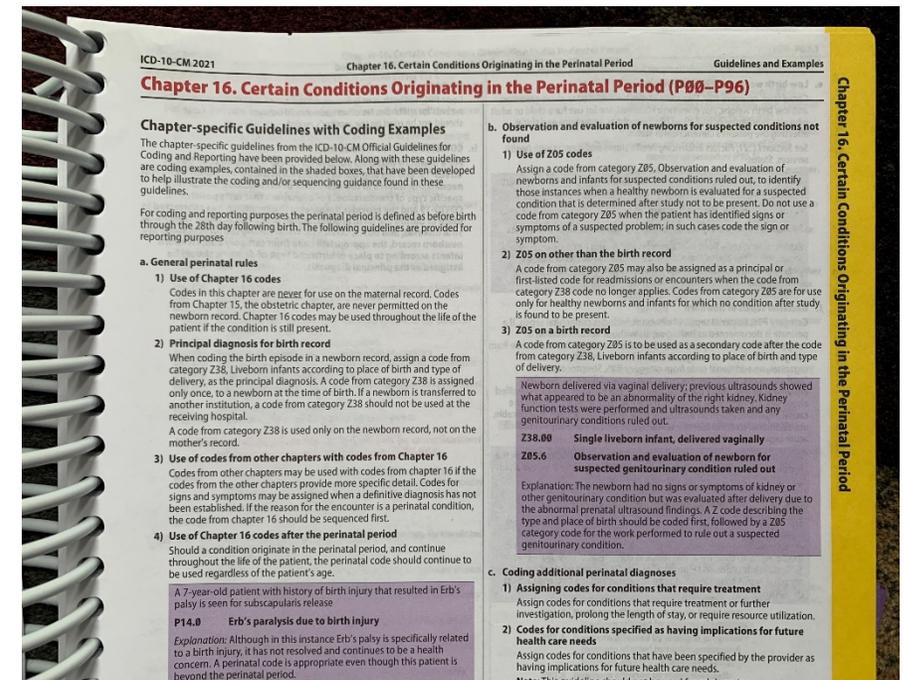
# ICD-10-CM CODEBOOK

## ORGANIZATION

- Chapter
- Block
- Category
- [Subcategory]
- Code



## PERINATAL GUIDELINES (13 PAGES)



# P04.1x Newborn affected by other maternal medication

- Name of category implies prescribed but no guidance given
- Includes the only specific code for opiate
  - Assumption: includes opioids
- Specific codes for
  - P04.11 Newborn affected by maternal antineoplastic chemotherapy
  - P04.12 Newborn affected by maternal cytotoxic drugs
  - P04.13 Newborn affected by maternal use of anticonvulsants
  - P04.14 Newborn affected by maternal use of opiates
  - P04.15 Newborn affected by maternal use of antidepressants
  - P04.16 Newborn affected by maternal use of amphetamines
  - P04.17 Newborn affected by maternal use of sedative-hypnotics
  - P04.1A Newborn affected by maternal use of anxiolytics
  - P04.18 Newborn affected by other maternal medication
  - P04.19 Newborn affected by maternal use of unspecified medication

Highlighted: Potential for misuse or abuse

## P04.4x Newborn affected by maternal use of drugs of addiction

- P04.40 Newborn affected by maternal use of unspecified drugs of addiction
- P04.41 Newborn affected by maternal use of cocaine
- P04.42 Newborn affected by maternal use of hallucinogens
- P04.49 Newborn affected by maternal use of other drugs of addiction

## P04.x other Newborn affected by maternal use of codes

- P04.2 Newborn affected by maternal use of tobacco
- P04.3 Newborn affected by maternal use of alcohol
- P04.5 Newborn affected by maternal use of nutritional chemical substances
- P04.6 Newborn affected by maternal exposure to environmental chemical substances
- P04.81 Newborn affected by maternal use of cannabis
- P04.89 Newborn affected by other maternal noxious substances
- P04.9 Newborn affected by maternal noxious substances, unspecified



# Neonatal withdrawal

- P96.1

Neonatal withdrawal symptoms from **maternal use of drugs of addiction**

- Does not differentiate between “withdrawal” and “discontinuation syndrome”
- Is not specific to opiates
- Does not define a severity of withdrawal signs
- Does not require pharmacologic therapy



# Which code(s)?

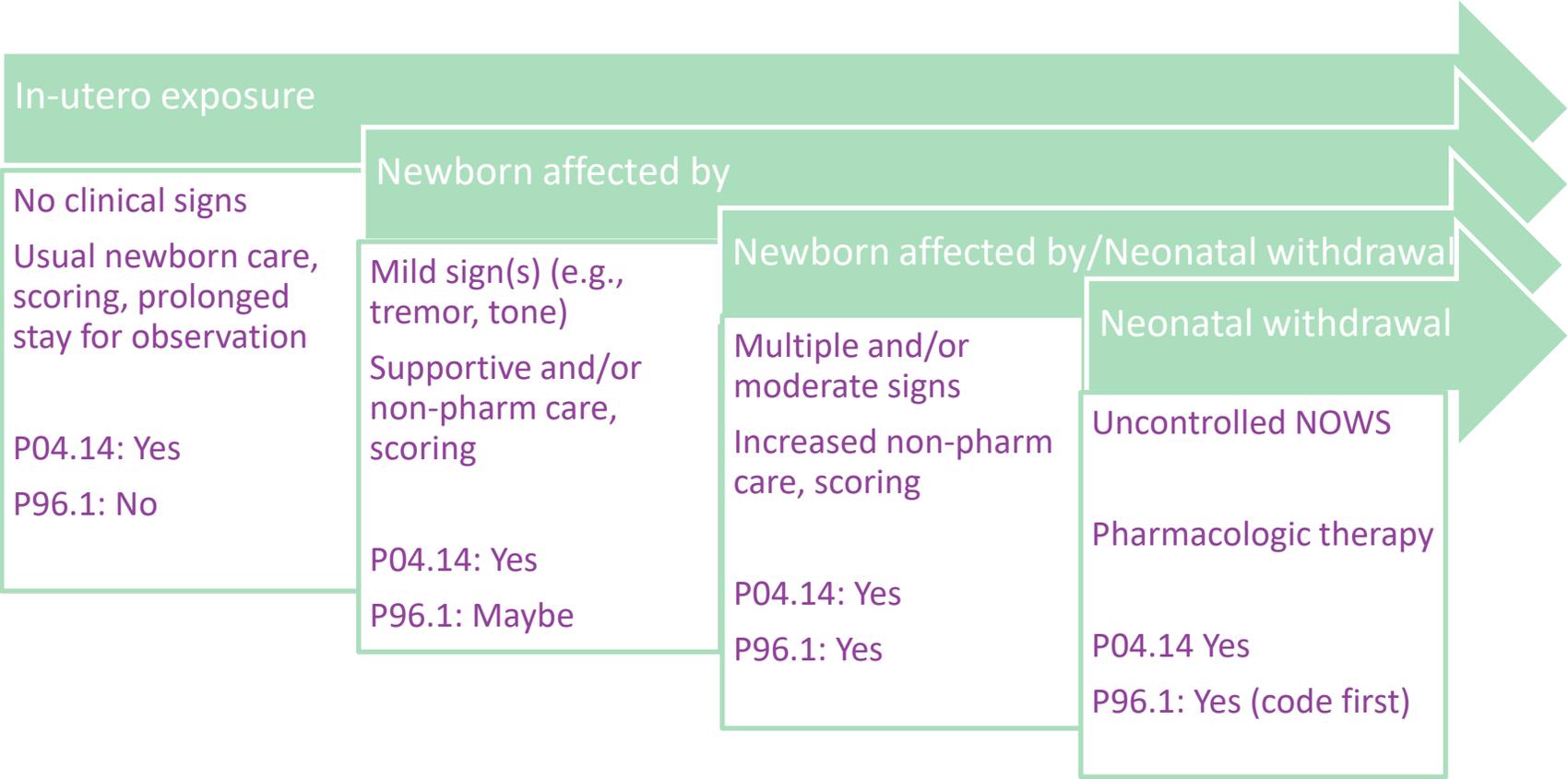
- What about suspected but unverified exposure?
- Should we code every (known) exposure or only when clinical signs of withdrawal?
- With poly-drug use, how do we know which drug(s) are affecting newborn condition?
- What are the costs and benefits of adding codes to chart? (to patient, facility, payor, public health, providers, research, QI)
- What's the difference between all the codes in EHR search? How do I tell which one is right?



# CODING GUIDELINES

- Code to the highest level of specificity. “Other” and “Unspecified” codes are used when a specific code does not exist.
- Select codes that describe signs, as opposed to diagnoses, when a definitive diagnosis has not been established/confirmed.
- Signs that are associated routinely with a disease process should not be assigned as additional codes (unless otherwise instructed)
- Should a condition originate in the perinatal period, and continue throughout the life of the patient, the perinatal code should continue to be used regardless of the patient’s age
  - Perinatal period is 0-28 days old (= DOL 1-29)

# Diagnostic coding for NOWS



Some select P04.49:Newborn affected by maternal use of other drugs of addiction for illicit opiate/opioid use

# Diagnostic uncertainty: NOWS, serotonin syndrome and/or other withdrawal (antidepressant discontinuation syndrome)

| Clinical Sign   | Opiate     | SSRI/SNRI       | Gabapentin      | Nicotine   | Caffeine |
|-----------------|------------|-----------------|-----------------|------------|----------|
| Irritability    | X          | X               |                 | X          | X        |
| Tremor          | X          |                 |                 | X          | X        |
| Muscular        | hypertonia | hypotonia       | Arch, myoclonus | hypertonia |          |
| Poor sleep      | X          | X               | X               |            |          |
| Respiratory     | tachypnea  | Distress, apnea | X               |            |          |
| GI              | X          | X               | X               |            | X        |
| Poor feeding    | X          | X               | ?               | X          |          |
| Poor transition |            | X               | X               |            |          |



## P04.x: “Newborn affected by maternal use of...” uncertain classification

| Drug: Rx use or illicit   | ICD-10-CM | ICD-10-CM description  |
|---|-----------|--|
| Opiate: acute pain, chronic pain, opiate use disorder, non-prescribed                                     |           |  |
|   | P04.14    | Newborn affected by maternal use of opiates                  |
|   | P04.49    | Newborn affected by maternal use of other drugs of addiction |
| Gabapentin: neuropathic pain, partial seizures, treatment-resistant mood/anxiety disorder, insomnia, PTSD |           |  |
|   | P04.18    | Newborn affected by other maternal medication                |
|   | P04.13    | Newborn affected by maternal use of anticonvulsants          |
|   | P04.49    | Newborn affected by maternal use of other drugs of addiction |
|   | P04.1A    | Newborn affected by maternal use of anxiolytics              |
| Clonazepam: panic disorder, seizure, anxiety, mania, insomnia, PTSD                                       |           |  |
|   | P04.17    | Newborn affected by maternal use of sedative-hypnotics       |
|   | P04.1A    | Newborn affected by maternal use of anxiolytics              |
|   | P04.13    | Newborn affected by maternal use of anticonvulsants          |
|   | P04.18    | Newborn affected by other maternal medication                |



# Social determinants of health

- Risk factors for adverse outcomes
- Coordination of community resources
- May increase complexity of Medical Decision Making (E/M level) and/or DRG
- Z codes: Factors Influencing Health Status and Contact with Health Services



# icd10cmtool.cdc.gov

The screenshot shows a web browser window with the URL `icd10cmtool.cdc.gov/?fy=FY2021&q=opiate`. The page header includes the CDC logo and the text "Centers for Disease Control and Prevention, CDC 24/7: Saving Lives, Protecting People™". A navigation bar identifies the user as being at the "National Center for Health Statistics". The main content area is titled "ICD-10-CM" and shows the "Fiscal Year" set to "FY2021 - includes January 2021 Addenda". A search bar contains the term "opiate". To the right of the search bar are links for "Preface | Guidelines | Help Guide | Print" and "Find code in Tabular List of Diseases", along with "Enter Code" and "View" buttons. Below the search bar, a horizontal menu shows counts for different categories: "Index to Diseases and Injuries" (11), "External Causes of Injuries Index" (0), "Table of Drugs and Chemicals" (14), and "Table of Neoplasms" (0). The "Index to Diseases and Injuries" section is expanded, showing a list of codes and descriptions related to opiate use, such as "Dependence (on) (syndrome) F19.20" and "Opiate analgesic Z79.891". The "Table of Drugs and Chemicals" section is also visible, with a sub-section for "Poisoning" containing four entries: "Poisoning Accidental", "Poisoning Intentional", "Poisoning", and "Poisoning".



# icd10cmtool.cdc.gov

The screenshot shows a web browser window with the URL `icd10cmtool.cdc.gov/?fy=FY2021&q=opiate`. The page header includes the CDC logo and the text "Centers for Disease Control and Prevention" and "National Center for Health Statistics". A navigation bar at the top right says "HAVE QUESTIONS? Email [nchsicd10CM@cdc.gov](mailto:nchsicd10CM@cdc.gov)".

## Tabular List of Diseases: P04.14

Legend: [i](#) [e](#) [g](#) [G](#) [v](#) [r](#) [o](#) [z](#)

|  |   |
|--|---|
| CHAPTER 16: Certain conditions originating in the perinatal period (P00-P96)                                 | <a href="#">i</a> <a href="#">e</a> <a href="#">z</a>   |
| <b>Newborn affected by maternal factors and by complications of pregnancy, labor, and delivery (P00-P04)</b> | <a href="#">i</a> <a href="#">e</a> <a href="#">z</a>   |
| P04 Newborn affected by noxious substances transmitted via placenta or breast milk                           | <a href="#">i</a> <a href="#">e</a> <a href="#">z</a>   |
| <b>P04.0 Newborn affected by maternal anesthesia and analgesia in pregnancy, labor and delivery</b>          | <a href="#">i</a> <a href="#">e</a> <a href="#">z</a>   |
| P04.1 Newborn affected by other maternal medication  | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| <b>P04.11 Newborn affected by maternal antineoplastic chemotherapy</b>                                       | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| <b>P04.12 Newborn affected by maternal cytotoxic drugs</b>   | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| <b>P04.13 Newborn affected by maternal use of anticonvulsants</b>  | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| <b>P04.14 Newborn affected by maternal use of opiates</b>  | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| <b>P04.15 Newborn affected by maternal use of antidepressants</b>  | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| <b>P04.16 Newborn affected by maternal use of amphetamines</b>   | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| <b>P04.17 Newborn affected by maternal use of sedative-hypnotics</b>   | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| <b>P04.18 Newborn affected by other maternal medication</b>  | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| <b>P04.19 Newborn affected by maternal use of unspecified medication</b>                                     | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| <b>P04.1A Newborn affected by maternal use of anxiolytics</b>  | <a href="#">i</a> <a href="#">e</a> <a href="#">g</a> <a href="#">z</a> <a href="#">r</a> <a href="#">o</a> <a href="#">z</a> |
| P04.2 Newborn affected by maternal use of tobacco  | <a href="#">i</a> <a href="#">e</a> <a href="#">z</a>   |
| P04.3 Newborn affected by maternal use of alcohol  | <a href="#">i</a> <a href="#">e</a> <a href="#">z</a>   |



# icd10cmtool.cdc.gov

The screenshot shows a web browser window with the URL `icd10cmtool.cdc.gov/?fy=FY2021&q=opiate`. The page header includes the CDC logo and the text "Centers for Disease Control and Prevention" and "National Center for Health Statistics". The main content area is titled "Tabular List of Diseases: P04.14". A "Legend" section is visible with various icons. The main list of diseases is under the heading "CHAPTER 16: Certain conditions originating in the perinatal period (P00-P96)". The list includes categories like "Newborn affected by maternal factors and by other conditions originating in the perinatal period" and "Newborn affected by noxious substances transmitted via placenta or breast milk". The entry "P04.14 Newborn affected by maternal use of drugs of addiction" is highlighted in yellow. A pop-up window titled "Excludes2 : P04.14" is open, showing a list of conditions that are excluded from P04.14, including "CHAPTER 16: Certain conditions originating in the perinatal period (P00-P96)", "P04 Newborn affected by noxious substances transmitted via placenta or breast milk", and "P04.1 Newborn affected by other maternal medication".

ICD-10-CM

Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives, Protecting People™

National Center for Health Statistics

Tabular List of Diseases: P04.14

Legend

CHAPTER 16: Certain conditions originating in the perinatal period (P00-P96)

Newborn affected by maternal factors and by other conditions originating in the perinatal period

P04 Newborn affected by noxious substances transmitted via placenta or breast milk

**P04.0 Newborn affected by maternal anesthesia and analgesia in pregnancy, labor and delivery**

P04.1 Newborn affected by other maternal medication

**P04.11 Newborn affected by maternal use of drugs of addiction**

**P04.12 Newborn affected by maternal use of sedatives**

**P04.13 Newborn affected by maternal use of tranquilizers**

**P04.14 Newborn affected by maternal use of drugs of addiction**

P04.15 Newborn affected by maternal use of sedatives

P04.16 Newborn affected by maternal use of tranquilizers

P04.17 Newborn affected by maternal use of other drugs of addiction

P04.18 Newborn affected by other maternal medication

P04.19 Newborn affected by maternal use of other drugs of addiction

P04.1A Newborn affected by maternal use of other sedatives

P04.2 Newborn affected by maternal use of other tranquilizers

P04.3 Newborn affected by maternal use of alcohol

Excludes2 : P04.14

- CHAPTER 16: Certain conditions originating in the perinatal period (P00-P96)
- congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)
- endocrine, nutritional and metabolic diseases (E00-E88)
- injury, poisoning and certain other consequences of external causes (S00-T88)
- neoplasms (C00-D49)
- tetanus neonatorum (A33)

**P04 Newborn affected by noxious substances transmitted via placenta or breast milk**

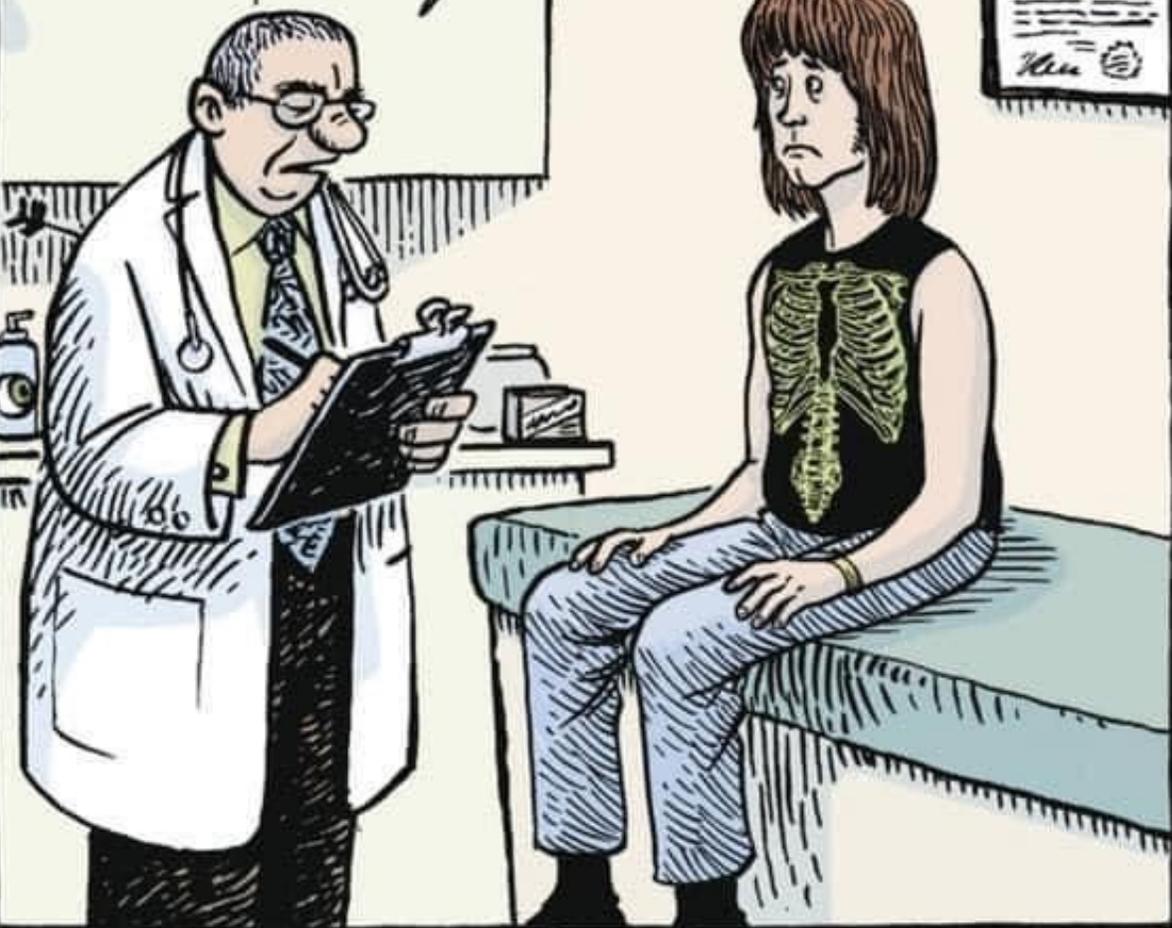
- congenital malformations (Q00-Q99)
- encounter for observation of newborn for suspected diseases and conditions ruled out (Z05.-)
- neonatal jaundice from excessive hemolysis due to drugs or toxins transmitted from mother (P58.4)
- newborn in contact with and (suspected) exposures hazardous to health not transmitted via placenta or breast milk (Z77.-)

**P04.1 Newborn affected by other maternal medication**

- maternal anesthesia and analgesia in pregnancy, labor and delivery (P04.0)
- maternal use of drugs of addiction (P04.4-)

I'm afraid it's worse than tendinitis, Mr. Tufnel. It's elevendinitis.

4  
P. RON  
KARO.  
6.27.14  
W/HARRIS



### ICD-10-CM Diagnosis codes for tendinitis

|        |        |               |             |
|--------|--------|---------------|-------------|
| M65.20 | M65.2  | M65.22        | M65.23      |
| M65.24 | M65.25 | M65.26        | M65.27      |
| M65.28 | M65.29 | M75.2         | M75.3       |
| M76.0  | M76.1  | M76.5         | M76.6       |
| M76.7  | M76.82 | Left<br>Right | Unspecified |

# Discussion and Q&A

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# Thank You!

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**PA PQC**

[www.whamglobal.org/papqc](http://www.whamglobal.org/papqc)

[papqc@whamglobal.org](mailto:papqc@whamglobal.org)



**NEPaPQC**

[www.nepapqc.org](http://www.nepapqc.org)

[nepapqc@geisinger.edu](mailto:nepapqc@geisinger.edu)

