



# **Pregnancy Workbook**

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**Substance Abuse Summit**

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Dependency During Pregnancy Workbook]



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# *PRE AND POST PREGNANCY*

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## *Preparation*



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# Extension for Community Health Care Outcomes (ECHO) Program - University of New Mexico

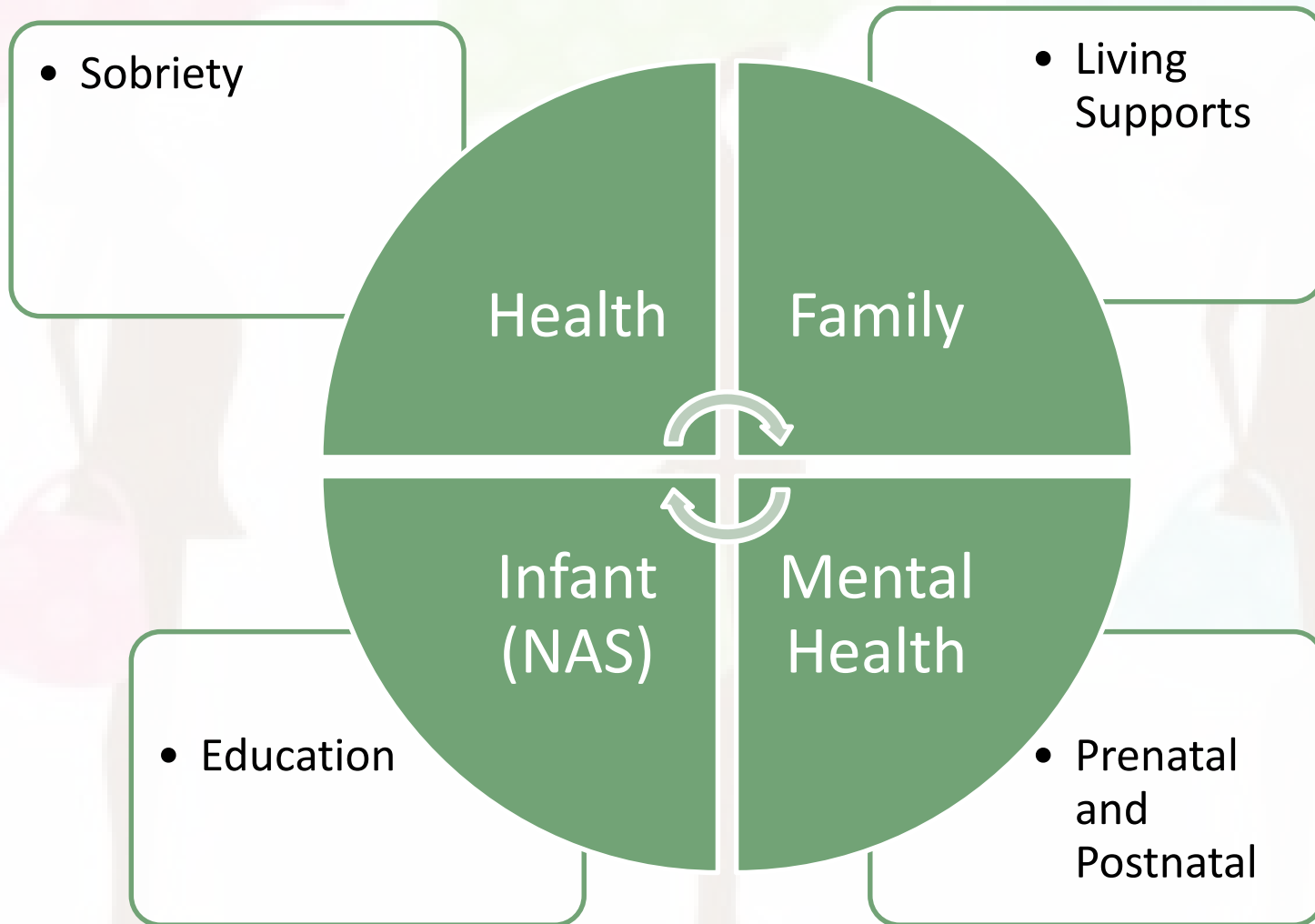
- Collaboration between community educators and the medical team (primary care physician, physician assistant etc.)
- Communicating with each other and identifying the concerns to enhance the progression of the patient's health

# Positive Direction & Associates, Inc.

## Workbook (In press)

- Collaborates with the OBGYN
- Communicates concerns regarding the recovery
- Develops treatment plans and shares with the physicians involved with the patient
- Provide intense education regarding effects of opioid use / other substances
- Provide education on Neonatal Abstinence Syndrome

# The counselor's concerns



# Attachment Concerns

- Moss-King 2009 attachment is part of the components of recovery and addiction.
- Attachment Theory (Bowlby and Ainsworth)
- Concerns:
  1. Attaching to the infant
  2. Unpredictable behavior of the infant
  3. Fear of failure / Fear of success of parenting

# Solution for attachment concerns

- Encourage continued recovery practices
- Give positive reinforcement to increase self-efficacy
- Identify any successes along the journey of the pregnancy and recovery
- Encourage the development of healthy relationships
- Encourage patience through the process

# OB / GYN Major Concerns

## Mom

- Toxemia
- Communal infections
  - a. Hepatitis C
  - b. HIV
- Hypertension
- Miscarriages
- Death

## Infant

- Stillbirths
- Low birth weight
- Small head circumference
- Early delivery
- Death
- High bilirubin levels



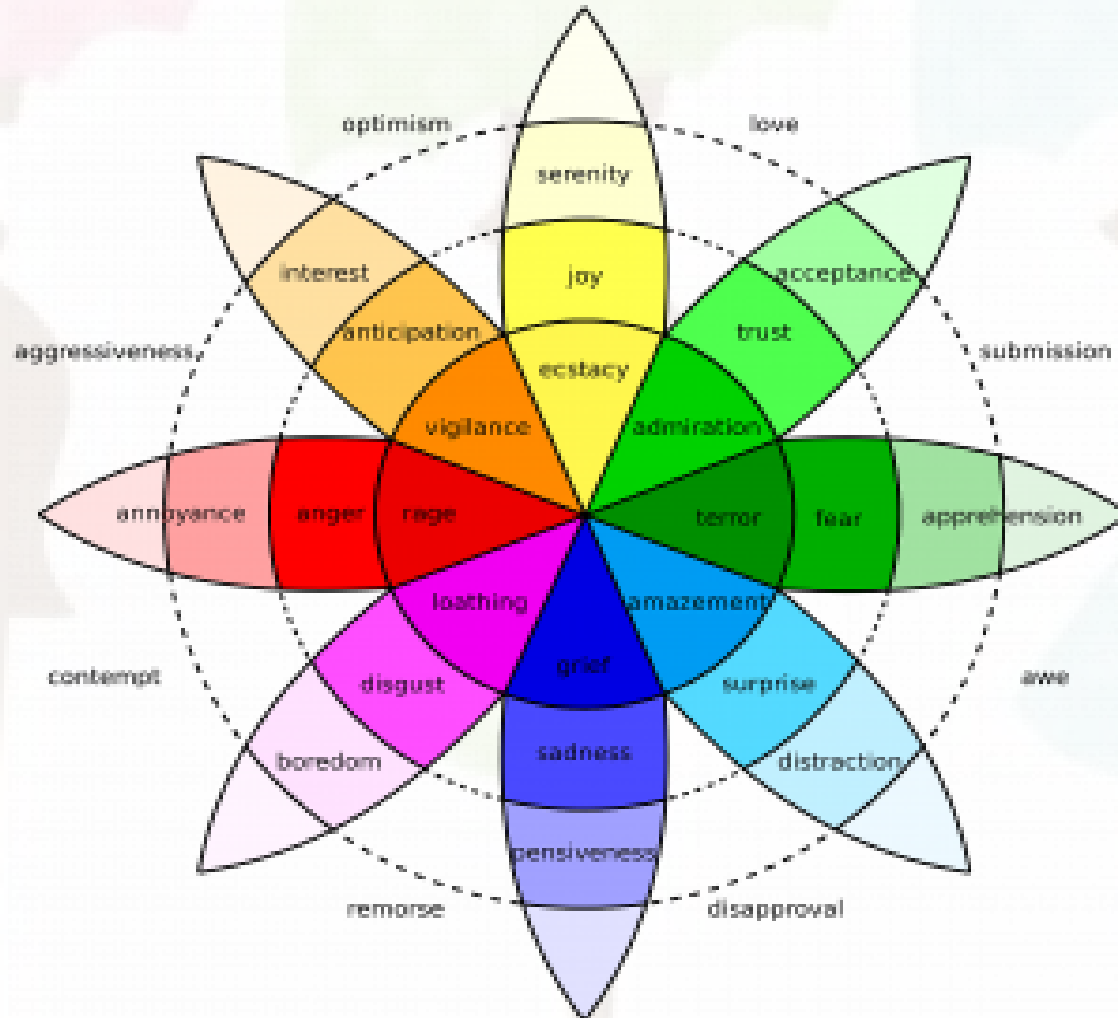
# Assessment

- Counselor / Nurse / Health Care Professional will complete an assessment identifying the needs

# 4 P's Prenatal Screening Tool

- **Parents:** Did your parents have challenges with drugs or alcohol?
- **Partner:** Does your partner have a problem with drugs or alcohol?
- **Past:** Have you had a problem with drugs or alcohol?
- **Present:** In the past 60 days have you used alcohol or legal or illegal drugs?

# Plutchik's Wheel of Emotion



# Motivational Interviewing

Developing a therapeutic alliance with the four processes in Motivational Interviewing (MI) a collaborative approach.

- Engaging
- Focusing
- Evoking
- Planning



# Core Skills - OARS



- O – Open Questions
- A – Affirming
- R – Reflecting
- S - Summarizing

# Exploring Values

- Value system may conflict with the counselor's
- Explore the value of sobriety
- Explore the value of what is most important
- Explore how is pregnancy adjacent or conflicting with the current values

# A Values Card Sort

- Most important
- Very important
- Somewhat important
- Not important



# Opioid Maintenance Therapy (OMT)

- Methadone
- Buprenorphine
- Suboxone (Naloxone and Buprenorphine)
- Subutex (Buprenorphine hydrochloride)





# OMT's

- Used to avoid withdrawal
- Maintain abstinence from heroin or other opioids that have compromised various life areas
- Used during pregnancy to provide safety for the pregnant woman and the fetus

# Methadone

## Journal of Pediatrics 2016

- Infants are born with opioid acute withdrawal
- Opioid Acute Withdrawal is called Neonatal Abstinence Syndrome (NAS)
- Infants are born with the average weight

# Precautions using pharmacotherapy

- Immediate precautions for women that are currently prescribed suboxone  
(Jones & Fiedler, 2015).
  1. Immediate evaluation
  2. Safely transferred to Buprenorphine (subutex)

# Buprenorphine

## Journal of Pediatrics, 2016

- Infants are born with the average weight
- Born from 38 – 40 weeks
- Less traces of the opioid in the system
  1. tested through the infants urine, umbilical cord and meconium
- NAS is still present, but not as severe
- More Clinical trials are needed to identify the efficacy with a true comparison to methadone

# Delivery

- Delivery staff need to be aware of OMT's
- Some medications can increase the risk of withdrawal during delivery
- *Consult* the OB/GYN

# Delivery



- APGAR scores are administered to all infants born

A = Appearance

P = Pulse

G = Grimace

A = Activity

R = Respiratory

# Delivery

## APGAR Scores

- Each child is evaluated one and five minutes following birth and 10 minutes if there are medical concerns
- Each area score is 0-2 with all areas adding up to a possible score of 10
- A score that is average is 8-10
- A score below 8 requires immediate medical attention and a transfer to the Neonatal Intensive Care Unit (NICU) for a further evaluation

# APGAR Scores for OMT's

- Scores could be below 8 for both methadone and buprenorphine



# Neonatal Abstinence Syndrome (NAS)

- Also called infant exposure (opioids, benzodiazepines, and nicotine)
- Delicate time period is the first 24 hours
  1. Seizures
  2. Inconsolable crying
  3. Evaluation process using assessment tools specific for NAS infants

# NAS

- Phenobarbital can be administered for the safety of the infant for seizure activity which is shown on a monitor
- Symptoms can appear 3 hours to 12 days after birth
- NAS can be found in nicotine and benzodiazepines



# NAS

- Negatively affects:
  - a. Neurological System
  - b. Gastrointestinal System
  - c. Autonomic System



# NAS

## Neurological System

- Irritability
- Staying awake for long periods
- Sleeping for short intervals
- High pitch cries for extended periods
- Sneezing often
- Stiff arms and legs
- Tremors
- Tremors with a moro reflex

# NAS

## Gastrointestinal System

- Compromised
- Vomiting
- Diarrhea
- Dehydration
- Inadequate weight gain

# Gastroschisis





# NAS

## Autonomic System

- Inability to suck
- Fever
- Inability to maintain body temperature
- Inability to regulate blood pressure



# NAS

## Assessment(s)

- The following assessments can be administered:
  1. The Finnegan Neonatal Abstinence Scoring System
  2. The Lipsitz Neonatal Drug Withdrawal Scoring system
  3. The Neonatal Withdrawal Inventory
  4. The Neonatal Narcotic Scoring Index
  5. The Withdrawal Assessment Tool– Version 1

# Finnegan Neonatal Abstinence Scoring System

- Administered every 4 hours
- The high critical score is 8 or above
- Pharmacology treatment will be administered



## NEONATAL ABSTINENCE SCORING SYSTEM

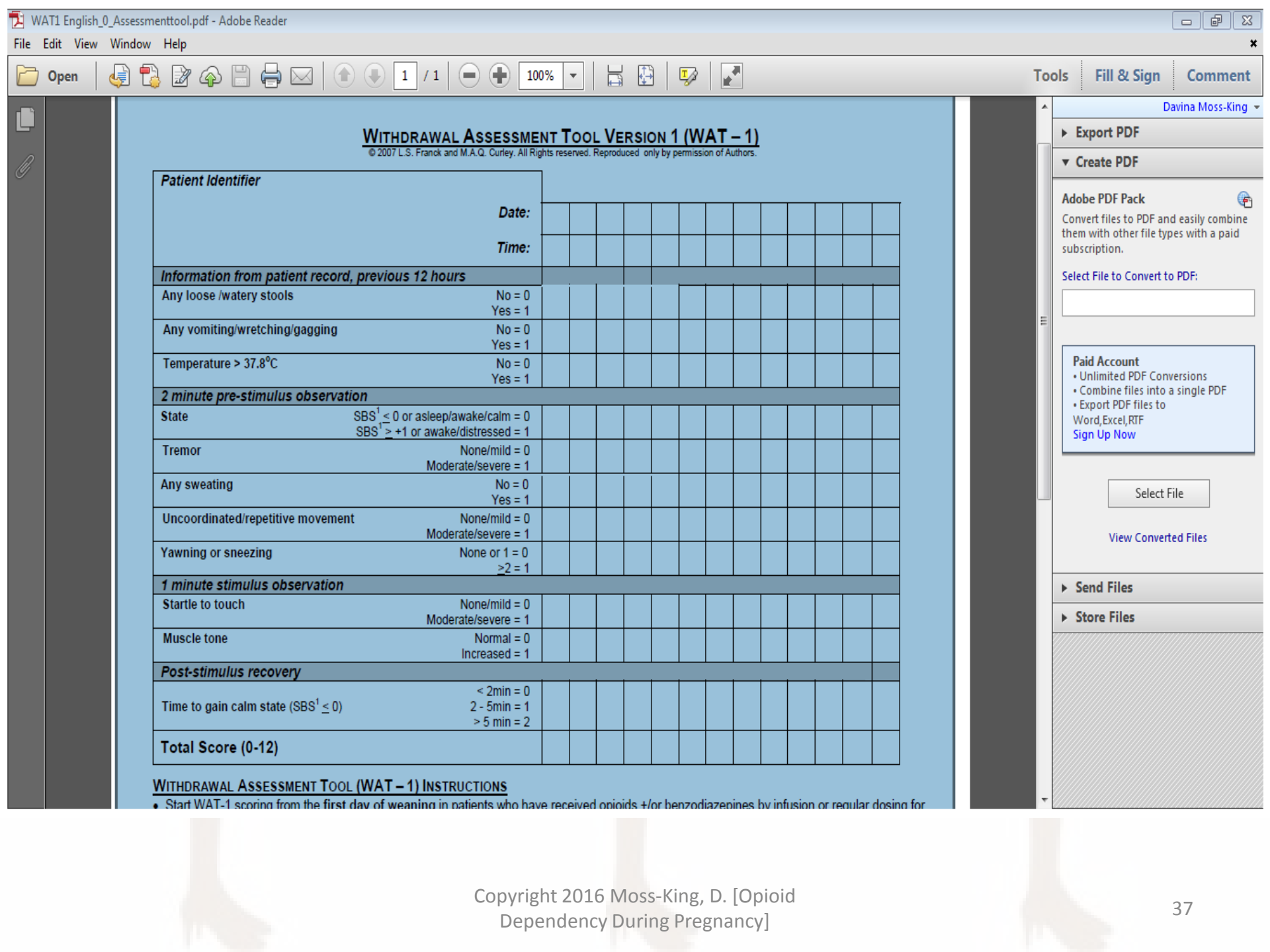


| Modified Finnegan Neonatal Abstinence Score Sheet <sup>1</sup> |  |       |    |  |  |    |  |  |          |  |
|--|--|-------|----|--|--|----|--|--|----------|--|
| System   | Signs and Symptoms                               | Score | AM |  |  | PM |  |  | Comments |  |
| <b>Central Nervous System Disturbances</b>                     | Excessive high-pitched (or other) cry < 5 mins   | 2     |    |  |  |    |  |  |          |  |
|  | Continuous high-pitched (or other) cry > 5 mins  | 3     |    |  |  |    |  |  |          |  |
|  | Sleeps < 1 hour after feeding                    | 3     |    |  |  |    |  |  |          |  |
|  | Sleeps < 2 hours after feeding                   | 2     |    |  |  |    |  |  |          |  |
|  | Sleeps < 3 hours after feeding                   | 1     |    |  |  |    |  |  |          |  |
|  | Hyperactive Moro reflex                          | 2     |    |  |  |    |  |  |          |  |
|  | Markedly hyperactive Moro reflex                 | 3     |    |  |  |    |  |  |          |  |
|  | Mild tremors when disturbed                      | 1     |    |  |  |    |  |  |          |  |
|  | Moderate-severe tremors when disturbed           | 2     |    |  |  |    |  |  |          |  |
|  | Mild tremors when undisturbed                    | 3     |    |  |  |    |  |  |          |  |
|  | Moderate-severe tremors when undisturbed         | 4     |    |  |  |    |  |  |          |  |
|  | Increased muscle tone                            | 2     |    |  |  |    |  |  |          |  |
|  | Excoriation (chin, knees, elbow, toes, nose)     | 1     |    |  |  |    |  |  |          |  |
| Myoclonic jerks (twitching/jerking of limbs)                   | 3  |       |    |  |  |    |  |  |          |  |
| Generalised convulsions  | 5  |       |    |  |  |    |  |  |          |  |
| <b>Metabolic/ Vasomotor/ Respiratory Disturbances</b>          | Sweating   | 1     |    |  |  |    |  |  |          |  |
|  | Hyperthermia 37.2-38.3C                          | 1     |    |  |  |    |  |  |          |  |
|  | Hyperthermia ≥ 38.4C                             | 2     |    |  |  |    |  |  |          |  |
|  | Frequent yawning (> 3-4 times/ scoring interval) | 1     |    |  |  |    |  |  |          |  |
|  | Mottling   | 1     |    |  |  |    |  |  |          |  |
|  | Nasal stuffiness                                 | 1     |    |  |  |    |  |  |          |  |
|  | Sneezing (> 3-4 times/scoring interval)          | 1     |    |  |  |    |  |  |          |  |
|  | Nasal flaring                                    | 2     |    |  |  |    |  |  |          |  |
|  | Respiratory rate > 60/min                        | 1     |    |  |  |    |  |  |          |  |
|  | Respiratory rate > 60/min with retractions       | 2     |    |  |  |    |  |  |          |  |
| <b>Gastrointestinal Disturbances</b>                           | Excessive sucking                                | 1     |    |  |  |    |  |  |          |  |
|  | Poor feeding (Infrequent/uncoordinated suck)     | 2     |    |  |  |    |  |  |          |  |
|  | Regurgitation (≥ 2 times during/post feeding)    | 2     |    |  |  |    |  |  |          |  |
|  | Projectile vomiting                              | 3     |    |  |  |    |  |  |          |  |
|  | Loose stools (curds/seedy appearance)            | 2     |    |  |  |    |  |  |          |  |
|  | Watery stools (water ring on nappy around stool) | 3     |    |  |  |    |  |  |          |  |
|  | <b>Total Score</b>                               |       |    |  |  |    |  |  |          |  |
|  | <b>Date/Time</b>                                 |       |    |  |  |    |  |  |          |  |
| <b>Initials of Scorer</b>                                      |  |       |    |  |  |    |  |  |          |  |

# Withdrawal Assessment Tool

## Version 1

- Used for opioid exposed infants and benzodiazepine exposed infants
- Each question has a maximum of points
- If the score is 10 or above pharmacological treatment is administered.
- See the Folder for WAST Version I sheet



## WITHDRAWAL ASSESSMENT TOOL VERSION 1 (WAT - 1)

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|   |   |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|
| <b>Patient Identifier</b>                                 |   |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Date:</b>  |   |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Time:</b>  |   |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Information from patient record, previous 12 hours</b> |   |  |  |  |  |  |  |  |  |  |  |  |  |
| Any loose /watery stools                                  | No = 0  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Yes = 1                                       |  |  |  |  |  |  |  |  |  |  |  |  |
| Any vomiting/wretching/gagging                            | No = 0  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Yes = 1                                       |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature > 37.8°C                                      | No = 0  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Yes = 1                                       |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>2 minute pre-stimulus observation</b>                  |   |  |  |  |  |  |  |  |  |  |  |  |  |
| State   | SBS <sup>1</sup> ≤ 0 or asleep/awake/calm = 0 |  |  |  |  |  |  |  |  |  |  |  |  |
|   | SBS <sup>1</sup> > +1 or awake/distressed = 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Tremor  | None/mild = 0                                 |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Moderate/severe = 1                           |  |  |  |  |  |  |  |  |  |  |  |  |
| Any sweating  | No = 0  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Yes = 1                                       |  |  |  |  |  |  |  |  |  |  |  |  |
| Uncoordinated/repetitive movement                         | None/mild = 0                                 |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Moderate/severe = 1                           |  |  |  |  |  |  |  |  |  |  |  |  |
| Yawning or sneezing                                       | None or 1 = 0                                 |  |  |  |  |  |  |  |  |  |  |  |  |
|   | >2 = 1  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>1 minute stimulus observation</b>                      |   |  |  |  |  |  |  |  |  |  |  |  |  |
| Startle to touch  | None/mild = 0                                 |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Moderate/severe = 1                           |  |  |  |  |  |  |  |  |  |  |  |  |
| Muscle tone   | Normal = 0                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Increased = 1                                 |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Post-stimulus recovery</b>                             |   |  |  |  |  |  |  |  |  |  |  |  |  |
| Time to gain calm state (SBS <sup>1</sup> ≤ 0)            | < 2min = 0                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 2 - 5min = 1                                  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | > 5 min = 2                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Total Score (0-12)</b>                                 |   |  |  |  |  |  |  |  |  |  |  |  |  |

### WITHDRAWAL ASSESSMENT TOOL (WAT - 1) INSTRUCTIONS

- Start WAT-1 scoring from the first day of weaning in patients who have received opioids +/- benzodiazepines by infusion or regular dosing for

## **WITHDRAWAL ASSESSMENT TOOL (WAT – 1) INSTRUCTIONS**

- Start WAT-1 scoring from the first day of weaning in patients who have received opioids +/- benzodiazepines by infusion or regular dosing for prolonged periods (e.g., > 5 days). Continue twice daily scoring until 72 hours after the last dose.
- The Withdrawal Assessment Tool (WAT-1) should be completed along with the SBS<sup>1</sup> at least once per 12 hour shift (e.g., at 08:00 and 20:00 ± 2 hours). The progressive stimulus used in the SBS<sup>1</sup> assessment provides a standard stimulus for observing signs of withdrawal.

### **Obtain information from patient record (this can be done before or after the stimulus):**

- ✓ Loose/watery stools: Score 1 if any loose or watery stools were documented in the past 12 hours; score 0 if none were noted.
- ✓ Vomiting/wretching/gagging: Score 1 if any vomiting or spontaneous wretching or gagging were documented in the past 12 hours; score 0 if none were noted
- ✓ Temperature > 37.8°C: Score 1 if the modal (most frequently occurring) temperature documented was greater than 37.8°C in the past 12 hours; score 0 if this was not the case.

### **2 minute pre-stimulus observation:**

- ✓ State: Score 1 if awake and distress (SBS<sup>1</sup>: ≥ +1) observed during the 2 minutes prior to the stimulus; score 0 if asleep or awake and calm/cooperative (SBS<sup>1</sup> ≤ 0).
- ✓ Tremor: Score 1 if moderate to severe tremor observed during the 2 minutes prior to the stimulus; score 0 if no tremor (or only minor, intermittent tremor).
- ✓ Sweating: Score 1 if any sweating during the 2 minutes prior to the stimulus; score 0 if no sweating noted.
- ✓ Uncoordinated/repetitive movements: Score 1 if moderate to severe uncoordinated or repetitive movements such as head turning, leg or arm flailing or torso arching observed during the 2 minutes prior to the stimulus; score 0 if no (or only mild) uncoordinated or repetitive movements.
- ✓ Yawning or sneezing > 1: Score 1 if more than 1 yawn or sneeze observed during the 2 minutes prior to the stimulus; score 0 if 0 to 1 yawn or sneeze.

### **1 minute stimulus observation:**

- ✓ Startle to touch: Score 1 if moderate to severe startle occurs when touched during the stimulus; score 0 if none (or mild).
- ✓ Muscle tone: Score 1 if tone increased during the stimulus; score 0 if normal.

### **Post-stimulus recovery:**

- ✓ Time to gain calm state (SBS<sup>1</sup> ≤ 0): Score 2 if it takes greater than 5 minutes following stimulus; score 1 if achieved within 2 to 5 minutes; score 0 if achieved in less than 2 minutes.

### **Sum the 11 numbers in the column for the total WAT-1 score (0-12).**

<sup>1</sup>Curley et al. State behavioral scale: A sedation assessment instrument for infants and young children supported on mechanical ventilation. *Pediatr Crit Care Med* 2006;7(2):107-114.

# NAS

## Pharmacological Treatment

- Scores determine pharmacological treatment
- Assessments are administered every 4 hours
- Morphine sulfate is the pharmacological treatment for infants exposed

# Breastfeeding

- Recommended that the Mom pumps so that the breast milk can be administered to the infant
- The American Academy of Pediatrics encourage breast feeding unless
  1. The mother has HIV
  2. The mother has not waited two hours after taken buprenorphine



# Discharge Plans Charmed Project

- <http://www.cffutures.org/presentations/webinars/opioid-use-pregnancy-community%E2%80%99s-approach-children-and-recovering-mothers-cha>
- “Opioid Use in Pregnancy: A Community Approach, 14

# Discharge Plans

- Proper living arrangements
- Involve the father (significant other)
- Pediatrician
- Occupational Therapist / Physical therapist
- Lactation Consultant

# Discharge Plans

- Proper living arrangements (Domestic Violence Situations)
- Pediatrician
- Occupational Therapist / Physical therapist
- Lactation Consultant
- OB / GYN
- Primary Physician
- Outpatient Clinic Referral
- OMT referral
- Social Worker

# Discharge Plans

- Specialists for any congenital conditions
- The most common are heart conditions detected by a fetal echocardiography evaluation and a referral to a child cardiologist
- Specialists for any other conditions

# Discharge Plans

- Extremely important for the discharge planner from the hospital communicate with the Mom's outpatient counselor at the CD facility or the OMT facility
- CD Counselor will need to follow-up with a treatment plan that will be conducive for the Mom and the baby as well

# Treatment Planning for Mom

- Treatment Planning can include at least 2 or 3 of the 9 life areas required by SAMHSA for the stabilization of the Mom
- Focusing on:
  1. Addiction
  2. Family (Father involvement)
  3. Medical

# Treatment Planning for the infant con't

- Continuing medical treatment with the pediatrician with consistency
- Assisting the Mother to keep “good” documentation

# Treatment Planning for both combined

- Family meetings often
- Illustrate the benefits of the mother to be consistently involved for the positive growth of the infant into toddler stages
- All treatment team need to have a yearly review to monitor progress



# Fetal Development Birth Defects (March of Dimes 2016)

- Developmental Delays
- Spina Bifida
- Hydrocephaly
- Glaucoma
- Gastroschisis
- Cleft palate
- Language
- Cognitive
- Congenital Heart Defects
  - a. Conoventricular septal defect
  - b. Hypoplastic left heart syndrome
  - c. Atrial septal defect
  - d. Tetralogy fallot
  - e. Pulmonary valve stenosis

# Fetal Development

## Birth Defects

- The heart and the eyes develop within the first three months
- The embryo has been developing since conception and on the 22<sup>nd</sup> day the brain is unprotected exposing to toxins
- On approximately the 22<sup>nd</sup> day the heart is beating and the placenta has formed taking nutrition and possible toxins to the embryo

# Future Plans for the Infant

- Toddler stages deficits can appear:
  1. Inadequate balance
  2. Delayed speech
  3. Delayed language development
  4. Difficulty understanding cues in social interactions (Mirror Neuron System)
  5. Lack of focus (short attention span, hyperactivity)

# Future Plans

- Language Delay Development is significant
  1. Inability to suck as an infant because to autonomic system was affected negatively
  2. Problems begin to show at age 2
  3. Speech Pathologist can give the assessment along with an occupational therapist
  4. Involve the pediatrician
  5. Individualized Educational Plan

# Conclusion

- Opioid Dependence is an epidemic and a public health concern
- Outpatient Facilities and OB/GYN physicians need to be aware of the negative effects of opioids and OMT's on the unborn infant as well as the future of the female patient
- NAS exposure is a medical concern for the infant and the infant's future education (learning style)

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# Conclusion

- Questions
- Concerns
- Comments



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