NNEPQIN
NORTHERN NEW ENGLAND
PERINATAL QUALITY IMPROVEMENT NETWORK

The following guidelines are intended only as a general educational resource for hospitals and clinicians, and are not intended to reflect or establish a standard of care or to replace individual clinician judgment and medical decision making for specific healthcare environments and patient situations.

NNEPQIN Breastfeeding Guidelines for Women with a Substance Use Disorder

Recommendations and Guiding Principles:

1. Mothers with substance use disorders (including those receiving medication assisted treatment with methadone or buprenorphine) with no other medical contraindication to breastfeed should be encouraged to breastfeed unless the risks of substance use clearly outweigh the medical, psychosocial, and financial benefits of breastfeeding. Women using alcohol or drugs should be advised, educated, and supported to cease alcohol or drug use due to risks of harm to infant during parenting and breastfeeding.
2. Decisions related to initiation and/or continuation of breastfeeding for women with substance use disorders should be made together with the woman, her obstetrical and treatment providers, lactation consultant(s), social worker(s), and infant provider(s) in an informed and individualized manner based on existing evidence available.
3. Communication with pregnant women with a history of substance use regarding nutritional recommendations should emphasize solidarity with and respect for the woman in order to support continued engagement in her needed care and support for high quality parenting.
4. Although substance use carries with it potential risk to the infant, substance use is not necessarily a contraindication to breastfeeding (WHO 2014). Therefore, a recommendation should be made to abstain from breastfeeding only if a woman expresses an intent to continue substance use *and* refuses substance use treatment.
5. Rapid urine drug screening is associated with a significant rate of false positives and thus confirmatory testing should be performed if screening results are inconsistent with maternal self-report.

Definitions

- **Substance Use:** The use of alcohol, illicit substance(s) and/or controlled substance(s) not prescribed to the mother as evidenced by:
    - Positive maternal self-report ***OR***
    - Positive confirmed maternal urine drug screening ***OR***
    - Positive confirmed neonatal drug screening.
- **Substance Use with Significant Risk to the Breastfeeding Infant:** Beyond the risks that substance use poses to good parenting, the use of any of the following substances carries with it significant potential risk to the breastfeeding infant. Other substances may be of significant risk, but sufficient data is not yet available about breastfeeding safety (e.g., bath salts). See Table 1 for reported adverse effects.
    - Cocaine
    - Daily or heavy alcohol use*****
    - Daily or frequent marijuana use*****
    - Heroin
    - Illicit amphetamines
    - Illicit benzodiazepines
    - Illicit opioids
    - Intravenous substance use
    - LSD
    - Methamphetamine
    - Phencyclidine (PCP)

(see specific sections below*)**

- **Medical Contraindications to Breastfeeding:**
    - Maternal HIV infection
    - Maternal HTLV infection
    - Infant Galactosemia
    - Mom taking certain medications where risk of morbidity outweighs benefits of breastmilk feeding (i.e., cancer chemotherapy, radioactive isotopes, antimetabolites, antiretroviral medications)
    - Maternal Substance Use with Significant Risk to Infant in Breastfeeding and:
        - Mother expresses an intent to continue substance use, *AND/OR*
        - Mother refuses substance use treatment

General Guidelines for Infant Feeding

- Recommend, encourage, and support breastfeeding if no **Medical Contraindications to Breastfeeding** exist**.** Provide information regarding benefits of breast/breastmilk-feeding if mother indicates preference for formula feeding.
- Encourage mothers to spend time in skin-to-skin contact to facilitate bonding, maternal-infant physiologic transitions, and infant feeding.
- Provide education, assessment, and support based upon mother's preference for infant nutrition after discussion of breastfeeding benefits.
    - Advise mothers to feed infant:
        i. Skin-to-skin in a calm, low-stimulating environment.
        ii. When hungry and until content, with a goal of 8-12 times per day in the first few weeks of life.
    - Ensure effective, frequent ad lib feedings for infants regardless of feeding type.
    - Provide lactation consultation for infants who are breastfed or being fed expressed breastmilk.
    - Ensure infant is demonstrating an appropriate weight for age:
        - Infants 35 weeks and above should demonstrate weight gain by day of life (DOL) 5.
        - Infants should regain birth weight between DOL 10 and 14, regardless of gestational age at birth.
        - After this time, growth velocity expectations are as follows:
            - Premature infant < 2 kg: 15-20 grams/kg per day
            - Premature infant >2 kg: 20-30 grams per day
            - Full term infant: > 20 grams per day
    - If weight gain is not demonstrated appropriately:
        - Reassess infant feeding to ensure efficacy and sufficient frequency of feedings.
        - Optimize feeding efficacy and frequency, when needed.
        - When additionally needed for poor weight gain:
            - Consider supplementation with high calorie breastmilk, human donor milk, or formula.
            - As there is no evidence for using special formulas, reserve use for specific clinical indications only.
- Recommend continuous rooming-in and frequent skin-to-skin contact (when mother is awake) due to significant benefits of enhanced mother-infant physiologic transitioning and bonding.
- Stress the importance of abstaining from alcohol and illicit substances during parenting for the safety of the infant, regardless of infant nutrition preferences.

For mothers desiring to breastfeed, provide the following instructions and support:

- Support and reinforce mother's decision to breastfeed, especially in regards to the health and psychosocial benefits of breast/breastmilk-feeding for her and her infant.
- Stress the importance of not exposing infant to any non-prescribed medication or substance during breastfeeding.
- Stress importance of not exposing infant to medications unless prescribed by (and under direct supervision of) a medical provider who is knowledgeable about effects of medications in lactation.
- Initiate Lactation consultation.

- **For mothers on methadone or buprenorphine maintenance treatment:**
  - Stress safety of medications in breastfeeding as long as the mother is under the direct care of a substance use disorder (SUD) treatment provider and as long as the mother does not abruptly cease treatment.
  - Review that breastmilk *may* help lessen the severity of neonatal drug withdrawal / NAS and need for pharmacologic treatment.
  - Review that mothers should decrease prescribed dose of medication postpartum *only* under supervision of a medical provider.
- **For mothers who desire to breastfeed but have a presumptive positive maternal or neonatal urine drug screen on admission, positive umbilical cord test,** or **maternal self-report** of **Substance Use with Significant Risk to Infant in Breastfeeding**:
  - Shared-decision making to initiate or continue breastfeeding should be individualized for each dyad with input from obstetrical and SUD treatment providers, lactation consultant(s), social worker(s), and infant provider(s) based on the following:
    - mother's history including self-report of substance use
    - mother's intent to engage in and access to SUD treatment
    - substance(s) in question
    - specificity of drug testing
    - existing evidence available regarding safety of substance in breastfeeding
  - Ascertain that the mother is committed to abstaining from all substance use, including marijuana and alcohol, while breastfeeding her infant and intends to engage in SUD treatment.
  - If the mother intends to abstain but needs assistance accessing SUD treatment, refer to an appropriate provider. Initial intake appointment should be scheduled prior to discharge.
  - Discuss with mother importance of communicating with her SUD treatment provider regarding need for assistance in ensuring safety of baby while breastfeeding. Stress importance of no substance use in breastfeeding and recommendation to discontinue breastfeeding if any substance use occurs.
  - If mother states intent to maintain abstinence and commitment to engage in treatment, initiate lactation consultation, arrange close maternal-infant follow-up, and support breastfeeding.
  - If mother states intent to continue to use substances and refuses substance use treatment, see **Mothers who state intent to continue Substance Use with Significant Risk to Breastfeeding Infants and refuse substance use treatment** below.
- **Mothers with self-report of marijuana use or urine drug screen positive for THC**:
  - Advise mother to abstain from marijuana use while breastfeeding and caring for her infant due to risk for impaired ability to safely care for him/her, hazards of passive smoke exposure to infant, and risks of marijuana exposure through breastmilk, including the following:
    - Marijuana contains many chemicals with the primary psychoactive constituent of marijuana being delta 9-tetrahydrocannabinol ($\triangle^9$–THC).
    - THC accumulates in breastmilk due to its long half-life (25–57 hours) and its affinity to fat in the mother's milk. THC can be present in human milk up to 8x that of levels in the mother's blood.
    - THC is absorbed and metabolized by the infant, and is then rapidly distributed to the infant's brain.
    - THC can be stored in an infant's fat tissue for weeks to months.
    - Marijuana has been shown to be contaminated with dangerous adulterants.
    - Infants can become extra sleepy and may experience long-term neurobehavioral/developmental impact.
  - To seek SUD treatment if she is a daily user of marijuana.
  - To not breastfeed if she is a daily or frequent user of marijuana (especially if she smokes multiple times per day) and does not intend to seek treatment and/or abstain from smoking. In this scenario, provide infant with mother's alternative choice for her infant's nutrition.
- **Mothers with alcohol use:**
  - Advise mother to abstain from daily alcohol use while breastfeeding and caring for her infant due to risk for impaired ability to safely care for him/her, and due to risks of alcohol in breastmilk including the following:
    - Breastmilk alcohol levels closely parallel blood alcohol levels.

        - Alcohol use may limit a woman's milk supply and transfer of milk to her infant by blunting prolactin response to infant suckling, interfering with the milk ejection reflex, and decreasing her infant's effectiveness in suckling due to sleepiness.
        - Breastfeeding after one or 2 drinks can decrease an infant's milk intake by approximately 20% and cause infant agitation and poor sleep patterns.
        - The long-term effects of daily use of alcohol on the infant are unclear. Some evidence indicates that infant growth and motor function may be negatively affected by exposure to one drink or more daily.
        - Heavy maternal use may cause excessive sleepiness, fluid retention, and hormone imbalances in breastfed infants.
    - With occasional intake:
        - Minimize and limit alcohol use.
        - Withhold breastfeeding for 2 hours or longer after consuming one standard drink (12 oz regular beer (~5% alcohol), 8-9 oz malt liquor (~7% alcohol), 4-5 oz wine (~12% alcohol), 1.5 oz distilled spirits (40% alcohol) or 4-8 hours after consuming more than one drink in a single occasion. The mother should "pump and dump" her breastmilk at least once in this period of time to ensure appropriate emptying of her breasts.
    - With daily or heavy use:
        - Decrease to only occasional intake, with recommendations as above, due to potential risk to breastfed infant.
        - Seek SUD treatment if she drinks one or more drinks daily, or is a heavy user of alcohol, and is unable to cut back use.
        - Not to breastfeed if she is a daily or heavy user of alcohol and does not intend to seek treatment and/or abstain from alcohol use due to potential risk to her breastfed infant. In this scenario, provide infant with mother's alternative choice for her infant's nutrition.
- **Mothers who state intent to continue Substance Use with Significant Risk to Breastfeeding Infants and refuse substance use treatment:**
    - Breastfeeding is not recommended due to the potential risk to the infant.
    - Recommend that infant's nutrition be previously stored substance-free breastmilk or mother's alternative choice for her infant's nutrition.
    - Encourage abstinence from substances as these may impair mother's parenting abilities and/or pose other risks to the infant.
    - If mother indicates intent to breastfeed despite infant provider recommendation to not breastfeed, advise mother that:
        - Breastfeeding is against medical advice due to safety concerns for the infant.
        - The mandated report to the state Child Protective Services (CPS) agency will also indicate the mother's intent to breastfeed against medical recommendations and reasons for the provider's recommendation.
- **Maternal Infection of Potential Concern in Breastfeeding**
    - Hepatitis C virus (HCV) is transmitted by infected blood. However, there are no current data to suggest that HCV is transmitted by human breastmilk. Therefore, maternal HCV infection is not a contraindication to breastfeeding. Although data are insufficient regarding safety, if the HCV-positive mother's nipples and/or surrounding areola are cracked and bleeding, she should hold breastfeeding temporarily. During this time, it is recommended that she express and discard her breastmilk (i.e., "pump and dump") and feed her infant with previously stored breastmilk or a breastmilk substitute (e.g., donor human milk, formula). Once her nipples are no longer cracked or bleeding, the HCV-positive mother may fully resume breastfeeding. A formal lactation consultation is recommended to assess and assist in achieving a deep, non-traumatic latch.

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VII. Table 1: Drugs of Abuse for Which Adverse Effects on the Breastfeeding Infant Have Been Reported*

Drug	Reported Effect or Reason for Concern
Alcohol	Impaired motor development or postnatal growth, decreased milk consumption, sleep disturbances. Note: Although binge drinking should be avoided, occasional, limited ingestion (0.5 g alcohol/kg/d; equivalent to 8 oz wine or 2 cans of beer per day) may be acceptable.
Amphetamines	Hypertension, tachycardia, and seizures. In animal studies of postnatal exposure, long term behavioral effects, including learning and memory deficits and altered locomotor activity, were observed.
Benzodiazepines	Accumulation of metabolite, prolonged half-life in neonate or preterm infant is noted; chronic use not recommended.
Cocaine	Intoxication, seizures, irritability, vomiting, diarrhea, tremulousness.
Heroin	Withdrawal symptoms, tremors, restlessness, vomiting, poor feeding.
LSD	Potent hallucinogen.
Methamphetamine	Fatality, persists in breast milk for 48 h.
Methylene dioxy-methamphetamine (ecstasy)	Closely related products (amphetamines) are concentrated in human milk.
Marijuana (cannabis)	Neurodevelopmental effects, delayed motor development at 1 y, lethargy, less frequent and shorter feedings, high milk-plasma ratios in heavy users.
Phencyclidine (PCP)	Potent hallucinogen, infant intoxication.

*Effect on maternal judgment or mood may also affect ability to care for infant.

**Although illicit opioids are not included in this table, it is the opinion of the NNEPQIN guideline workgroup that the potential risks associated with the illicit use of opioids carries with it risk for ingestion of other unknown substances that may be associated with significant risk to the infant in breastfeeding.

Table adapted from: AAP COMMITTEE ON DRUGS. The Transfer of Drugs and Therapeutics Into Human Milk: An Update on Selected Topics. *Pediatrics.* 2013. See full article for individual drug references.