NNEPQIN

SECTION 5:

BEST PRACTICE IMPLEMENTATION AND QUALITY IMPROVEMENT

Section 5: Quality Improvement and Implementation Resources

Whether you're implementing new practices or reinforcing or updating existing practices, it is important to continuously evaluate the care you and your team provide patients. This section provides tools to assist practices who would like to assess the care they provide patients with substance use disorders.

1. Assessing the Quality of Care
   - 1.1 Provider Survey
   - 1.2 Care Improvement Questionnaire

2. Implementation Support for Perinatal SUD Care Management
   - 2.1 Best Practice Checklist for use in EMR
   - 2.2 Buprenorphine Induction Algorithm
   - 2.3 Opioid Use Disorder Clinical Pathway

3. Perinatal Substance Use Disorder Projects and Programs

4. Perinatal Opioid Use Learning Collaborative-Data Collection Materials
   - 4.1 Process Map
   - 4.2 Sample Outcomes Summary Form

1. Assessing the Quality of Care

The following tools may be used by practices to assess the quality of care provided to pregnant patients. One tool assesses providers' attitudes towards patients' substance use. The second tool assesses a patient's experience receiving care from a practice. Results from these brief surveys may inform educational opportunities for providers, or adjustments to practice policies or protocols.

1.1 Provider Survey

This survey was developed by the National Centre for Education and Training on Addiction, Adelaide, South Australia.

Health Professional Attitudes Towards Licit and Illicit Drug Users: A Training Resource

Please answer the following questions as accurately as possible. All responses are completely anonymous. Thank you!

	Not at all		Moderately		Very
1. To what extent are adverse life circumstances likely to be responsible for a person's problematic drug use?					
2. To what extent in an individual personally responsible for their problematic drug use?					
3. To what extent do you feel angry towards people using drugs?					
4. To what extent do you feel disappointed towards people using drugs?					
5. To what extent do you feel sympathetic towards people using drugs?					
6. To what extent do you feel concerned towards people using drugs?					
7. To what extent do people who use drugs deserve the same level of medical care as people who don't use drugs?					
8. To what extent are people who use drugs entitled to the same level of medical care of people who don't use drugs?					
9. Which of the following best describes your role?	☐ Provider ☐ Nurse ☐ Other professional ☐ Prefer not to answer				

1.2 Care Improvement Questionnaire

Developed by Dartmouth-Hitchcock Medical Center Team but heavily influenced by PROMIS questionnaires

Please answer the questions below as openly as possible. This is a completely anonymous survey and your honest feedback is really important to us.

Thank you for taking the time to let us know how we're doing!
This is a completely anonymous survey and your honest feedback is really important to us. Thank you for taking the time to let us know how we're doing!

In thinking about the care you received during your pregnancy, please answer the following questions as openly as possible:

1. My prenatal care helped me feel ready to care for my baby...	☐ Not at all ☐ Slightly ☐ Somewhat ☐ Moderately ☐ Extremely
2. I felt treated with dignity and respect...	☐ Never ☐ Almost never ☐ Occasionally/Sometimes ☐ Most of the time ☐ All the time
3. My care team explained things in a way that was easy to understand...	☐ Strongly disagree ☐ Disagree ☐ Neither agree or disagree ☐ Agree ☐ Strongly agree
4. My care team was interested in what I had to say...	☐ Strongly disagree ☐ Disagree ☐ Neither agree or disagree ☐ Agree ☐ Strongly agree
5. Was there anything you experienced during your hospital stay that you didn't feel adequately prepared for? If so, please describe.	
6. What was the most helpful part of the care you received during your pregnancy?	
7. What would you change about the care you received during your pregnancy?	

2. Implementation support for perinatal SUD care management

2.1 Best Practice Checklist for use in EMR

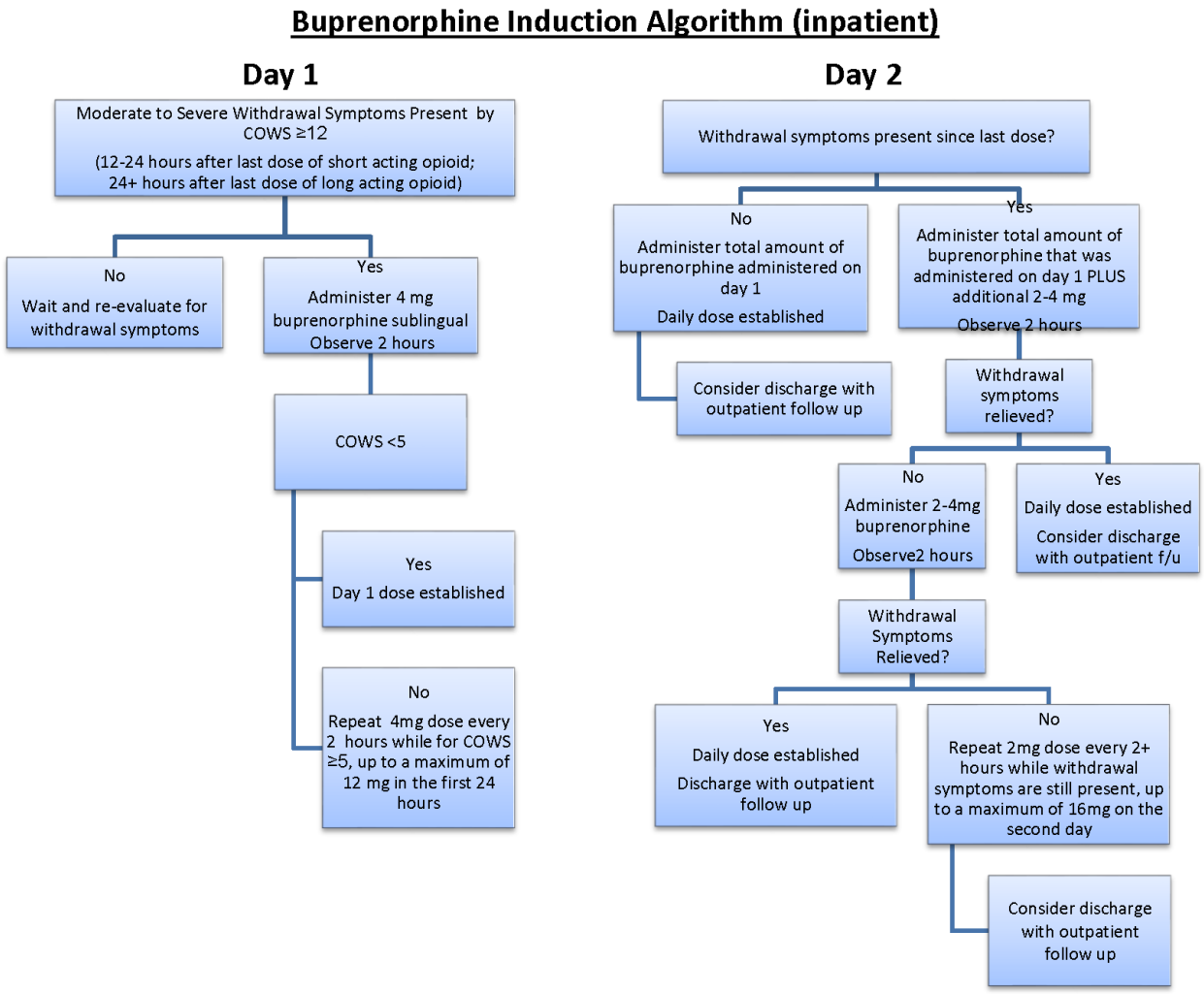
This checklist was developed as a tool used in a data collection learning collaborative facilitated by Dartmouth-Hitchcock.

Element	**Date**	**Comments**
Federal consent to share information with treatment provider		
HIV status		
HBsAg, HBcAb, HBsAb		
Hepatitis C antibody		
HCV viral load and genotype *(if indicated)*		
Hepatic Function Panel		
Serum Creatinine		
Institutional drug testing policy reviewed		
Plan of Safe Care introduced		
Behavioral Health		
Needs assessment / Care Management referral		
Risks of non-prescribed drugs and alcohol discussed		
Marijuana counseling		
Tobacco counseling/treatment		
Naloxone discussed /offered		
Offer Hepatitis A or A/B vaccine		
Third Trimester		
Repeat HIV, HBsAg, HCVAb, GC/CT		
Ultrasound (growth/fluid)		
Urine toxicology with confirmation, **(consent required)**		
Ethyl glucuronide/ethyl sulfate (alcohol metabolites)		
Third trimester education		

Review Plan of Safe Care		
Review institutional drug testing policy		
NAS/newborn care		
Breastfeeding		
Pain management		
Family Planning		
Pediatrician identified		
Repeat Hepatitis A or A/B vaccine		
OTHER		

2.2 Induction Algorithm

Source: Dartmouth-Hitchcock Medical Center



2.3 Opioid Use Disorder Clinical Pathway

The following pathway is intended to provide a guide for clinicians seeking to operationalize best practice in the care of pregnant people with substance use disorders including opioid use disorders, and is adapted from a similar pathway developed by the Alliance for Innovation in Maternal Health.

ANTEPARTUM CARE (OUTPATIENT)
FOLLOWING IDENTIFICATION OF SUBSTANCE USE IN PREGNANCY

• Ask about symptoms of withdrawal if substance identified causes physiologic dependence (for example, opioids, benzodiazepines, alcohol)
• Assess for signs and symptoms of acute withdrawal (COWS assessment)
  ○ Early: agitation, anxiety, muscle aches, increased tearing, insomnia, runny nose, sweating, yawning
  ○ Late: abdominal cramping, diarrhea, dilated pupils, goose flesh, nausea, vomiting
• Refer immediately to one of the following for treatment and/or stabilization depending on gestational age, substance suspected of causing withdrawal, and acuity:
  ○ Emergency Room
  ○ Obstetric Triage
  ○ Inpatient treatment center

- Screen for comorbid psychiatric conditions
    - If positive, ensure Behavioral Health needs are met through referral or integrated care

- Screen for comorbid domestic violence
    - If positive refer to local domestic violence advocacy service

- Complete a detailed medical, surgical, obstetric, and prenatal history

- Provide physical examination if patient consents

- Assess for other immediate psychosocial needs

- Obtain recommended lab testing in addition to routine prenatal labs (NNEPQIN checklist)
    - HIV
    - Screen for Hepatitis B disease or immunity: HepBsAg, anti-HBcore, HBsAb
        - Consider immunization as indicated
    - Screen for hepatitis C: HCV antibody
        - If positive draw HCV PCR, LFTs
    - Serum creatinine
    - Consider gamma-glutamyl transferase (GGT) if active alcohol use suspected
    - Assess risk factors for tuberculosis and screen if indicated
    - Discuss institutional practice regarding urine toxicology (drug testing)
        - Requiring routine urine toxicology as a part of prenatal care may be a deterrent to engagement However, urine toxicology can also be helpful, if requested by a patient (e.g. if court ordered)
        - Urine toxicology should never be used to *screen* for drug or alcohol use, unless a patient is unconscious[4] or otherwise incapacitated and results are essential for care
        - Patient consent is required for urine toxicology unless a patient is unconscious or unable to consent.
        - When performed, toxicology testing should include: synthetic opioids (e.g., buprenorphine, fentanyl, oxycodone). Fentanyl and benzodiazepines may not be detected with standard drug test and may require more specific testing. Consult with individual lab to ensure both synthetic opioids and benzodiazepines are included.
    - Order baseline EKG before starting methadone

- Perform dating ultrasound upon entry to care

- Determine appropriate level of care and arrange referrals to treatment when indicated and accepted by woman (Wright el al, Figure 1)
    - Refer for medically supervised inpatient detoxification if alcohol or benzodiazepine dependent
    - If psychiatric or medical instability, refer for emergency psychiatric or medical care services.

- When appropriate, provide the pregnant/postpartum person information re. area treatment providers (SAMHSA treatment directory)

- If a pregnant person is currently in a treatment program:
    - Obtain appropriate CFR42 Part 2 consent to communicate with treatment provider (Legal Action Center sample consents)
    - Coordinate care with mental health/treatment provider or center and provide a warm Handoff when possible

- Counsel about recommended substance use management, risks to pregnancy, fetus, infant and explore treatment options
    - Recommended treatment for OUD during pregnancy is MOUD with buprenorphine or methadone; explore options, arrange appropriate referrals.
    - Recommended management of alcohol use during pregnancy is complete abstinence; explore options arrange appropriate referrals.
    - Recommended management of marijuana use during pregnancy is abstinence; explore options to assist patient.

- Counsel about risks of tobacco use and offer smoking cessation strategies

- Counsel about maternal/fetal/neonatal risks of polysubstance use (SAMHSA Factsheet #6)

- Check state Prescription Monitoring Program

[4] SAMHSA Clinical Guidance Document (2018)

- Be aware of potential pharmacologic interactions with Buprenorphine/Methadone (McCance-Katz et al, Table 2)
- Discuss naloxone and offer prescription (Narcan toolkit)
- Assess need for bowel regimen for constipation
- Assess need for anti-emetics and antacids for hyperemesis/reflux
  - Note: avoid Zofran for people on methadone to avoid risk of prolonged QTc interval
- Consultation and Referral considerations may include, but are not limited to:
  - Social Work
  - Case Management
  - Maternal Fetal Medicine if medically complex
  - Cardiology with prior history of endocarditis
  - Infectious Disease if HIV or HCV/HBV positive, Gastroenterology if HCV/HVB positive
  - Dental care
- Schedule short interval follow up for prenatal care: prenatal care attendance is associated with improved outcomes[5]

FOLLOW-UP CARE

- Reassess and treat opioid side effects
- Assess for changes in psychosocial and medical needs
- Ask about cravings and treatment effectiveness at every visit
- Provide continued tobacco cessation counseling and treatment for patients who smoke
- Periodically review PDMP for patient prescription history
- Offer urine toxicology, with patient consent, in third trimester, to allow time for confirmatory testing prior to admission if necessary.
- Document treatment coordination in medical record to facilitate postpartum discharge planning

SECOND AND THIRD TRIMESTER CARE

- Schedule detailed second trimester anatomy scan
- Schedule third trimester growth scan
  - Monitor growth with serial assessments as indicated
- Antenatal testing only if clinically indicated; e.g., IUGR. (Reddy et al, Box 1)
  - For patients on methadone: When antenatal testing is indicated, try to schedule at least 4-6 hours after last methadone dose to reduce false positive NST and/or BPP.
- Repeat HIV, HCV, RPR, GC/CT in third trimester
  - Repeat HBsAg if initial HBsAb testing negative
- Verify and update MOUD medication/dose/status with treatment provider/center prior to birth
  - Advise pregnant people to bring buprenorphine to hospital admission for safe storage and dose verification; and last dose letter for patients receiving methadone.
  - Discuss pain management options for labor and birth
    - Consider Anesthesiology consult for the pregnant people with high anxiety, difficult IV access, or other co- existing medical issues pertinent to anesthesia
- Educate family about NAS/NOWS, breastfeeding
  - Options for Rooming in if provided at anticipated birth hospital
  - Maternal participation in Eat, Sleep, Console if utilized at anticipated birth hospital
  - Encourage skin-to-skin and breastfeeding (SAMHSA factsheet #11)
- Provide Patient/family education to include:
  - Hospital policies (SAMHSA Factsheet #7)
    - NAS/NOWS assessment/management/length of stay
    - Breastfeeding
    - Maternal/newborn toxicology and reporting requirements

[5] El Mohandes, 2008; Goodman, Saunders, Frew et al, 2021

- Provide education about
  - Signs and symptoms of pregnancy complications
  - Importance of prenatal care
  - Plan for fetal surveillance
  - NAS/NOWS assessment/management/length of stay
  - Maternal/newborn toxicology and reporting
  - Importance of postpartum care

- Consider prenatal consult appointment with pediatrician/neonatologist at delivering institution

- If delivering hospital is unable to care for infant with NAS/NOWS, discuss antenatal transfer of care versus neonatal transfer after delivery if treatment becomes necessary

- Provide non-coercive contraceptive counseling (SAMHSA Factsheet #7)
  - Offer post-placental IUD insertion or implant prior to discharge, if available at institution.

GENERAL CONSIDERATIONS OF METHADONE MAT IN PREGNANCY

- For people on methadone prior to pregnancy, encourage to continue current treatment relationship.
  - May need increased dose in throughout pregnancy

- Patient/family education
  - Risk and benefits of methadone treatment in pregnancy
  - Daily visit requirement at treatment center
  - Insurance coverage and/or cost
  - Conflicting long-term studies on outcomes in children exposed in utero
  -

GENERAL CONSIDERATIONS OF BUPRENORPHINE IN PREGNANCY

*LITERATURE **DOES NOT** SUPPORT SWITCHING FROM BUPRENORPHINE/NALOXONE TO BUPRENORPHINE MONOTHERAPY DUE TO PREGNANCY*

- In order to maintain plasma concentrations above 1ng/mL to prevent withdrawal symptoms, consider increasing frequency of dosing (3-4 times per day) (Caritis, S.N. et al)

- Patient/family education
  - Risk and benefits of buprenorphine treatment in pregnancy
  - Insurance coverage and/or cost
  - Induction process requires patient to be in moderate withdrawal
  - Limited data on long-term outcomes of children exposed in utero

- Consider possible “graduation” to monthly prescription as indicated

INPATIENT OBSTETRIC CARE

IF INITIAL CONTACT IS IN OBSTETRIC ED/TRIAGE OR L&D

- Refer to above “Upon entry into care and identification of substance use in pregnancy”

- Initiate clinical pathway for acute opiate withdrawal or elective induction to MOUD
  - ASAM buprenorphine course

- Consider acute withdrawal in the differential diagnosis of a pregnant person with intractable, nausea, vomiting, or abdominal pain

- Assess for signs and symptoms of placental abruption or labor

ADMISSION FOR LABOR AND BIRTH

- Request release of information to confirm MOUD medication and dose with addiction provider
  - Note: Inpatient provider without a DATA2000 waiver may legally prescribe buprenorphine and methadone to maintain the pregnant person’s treatment dose during hospitalization, but a waiver is required to prescribe buprenorphine at time of discharge

- Continue buprenorphine/methadone at usual dosing (SAMHSA Factsheet #8)
  - Consider dividing total daily dose of buprenorphine into every 6-8 hour dosing for maximal effects (ACOG Committee Opinion 711)

- Prescribe nicotine replacement as indicated

- Labs
  - Routine labs for labor and birth
  - Repeat HIV/Hepatitis screening if not repeated in third trimester
  - Urine toxicology with consent

- Notify pediatric provider of admission for delivery and determine need for neonatal team at birth

- Consults
  - Neonatology consult if not previously done
  - Social work/Care management
  - Anesthesiology
  - Lactation
  - If non-prescribed substance use is first disclosed at time of birth, or substance- related complications are present, consider consultation with addiction or Maternal Fetal Medicine specialist.
  -

- Offer immediate postpartum long-acting contraception as provided by facility (ACOG Committee Opinion #670)

- Involve the postpartum person, social work, and pediatrics/neonatology to establish a Plan of Safe Care.

PERIPARTUM PAIN MANAGEMENT (OHIO MOMS PAIN MANAGEMENT PROTOCOL)

- General Considerations:
  - Maintenance medication does not treat pain
  - Women using MAT or with history of long term opioid exposure may require higher and more frequent dosing of narcotic medications for intrapartum and postpartum pain
    - Opioid dependent women have increased sensitivity to painful stimuli (hyperalgesia)
    - Opioids dependent women experience tolerance to opioid treatment for analgesia
    - Higher doses of full opioid agonists will be required to displace buprenorphine and provide analgesia

- Pharmacologic interactions
  - Avoid partial agonist/antagonists in treating pain (i.e., nalbuphine or butorphanol) as these can cause precipitated withdrawal for patients who are physiologically dependent on opioids. Fentanyl is the preferred opioid analgesic for this reason.

- Neuraxial analgesia is preferred for cesarean birth or other procedures
  - If general anesthesia is necessary, be aware of increased risk of airway compromise or drug interactions with concomitant use of stimulants

INTRAPARTUM (EXECUTIVE SUMMARY ON OPIOID USE IN PREGNANCY BOX 2)

- Educate L&D and postpartum staff on opioid pharmacology and appropriate pain control

- Provide continuous labor support during active labor
  - 1:1 staffing
  - Offer Doula services if available and afforable

- Avoid fetal scalp electrodes in women with HIV or HCV

- Recommend early labor neuraxial anesthesia with continuous dosing to provide pain relief for labor and birth
  - Epidural analgesia using opioids (e.g. fentanyl) in usual labor doses may not be effective in opioid dependent patients.
  - May be necessary to use higher doses of local anesthetics or nonopioid adjuvants such as clonidine
  - If neuraxial anesthesia is not feasible or available, consider the following:

- Nitrous oxide
- Short acting opioids
- *Do not use nalbuphine or butorphanol for analgesia or pruritis as these can precipitate withdrawal*
    - *If withdrawal inadvertently precipitated, withdrawal symptoms can be reversed with full agonists or for those in treatment with buprenorphine a 2-4 mg dose*

POSTPARTUM CARE (REDDY ET AL)

- Vaginal birth pain management
    - Consider scheduled doses of NSAIDs and acetaminophen rather than prn dosing
        - Avoid acetaminophen with evidence of liver impairment

- Cesarean birth pain management may include the following:
    - Intrathecal or epidural opioids for postpartum pain control
        - May not be fully effective requiring other options
            - Higher concentrations of local anesthetics or non-opioid adjuvants (e.g., clonidine) in epidural solutions
            - Consider PCA for additional coverage if needed but use PCA by demand only and patient monitored carefully for respiratory depression
    - Intraoperative ketorolac when appropriate
    - Scheduled Nonsteroidal anti-inflammatory drugs and acetaminophen
        - Avoid acetaminophen with evidence of liver impairment
    - Alternative pain management includes gabapentin, transversus abdominis plane (TAP) blocks, and IV acetaminophen but further data needed

- When opioids used for complicated vaginal or cesarean birth:
    - Practice shared decision making
    - Monitor closely for over sedation.
        - If somnolent, decrease pain medication dose or consult the addiction treatment provider to adjust dose of MAT
    - Provide close follow-up
    - Prescribe limited quantities
    - Taper rapidly transitioning for non-opioid options
    - Consider hydromorphone for patients on buprenorphine, due to high receptor binding capacity

POSTPARTUM SUPPORT

- If breastfeeding is desired and institutional policy allows, provide lactation consultation and breast feeding support (SAMHSA Factsheet #11)

- Provide patient and family education to include:
    - Caring for NAS babies (Stronger Together video) *(NNEPQIN strongly urges patient education on the Eat, Sleep, Console Model, contact NNEPQIN for more information)*
    - Signs and symptoms of newborn withdrawal
    - Comfort care measures
    - Maternal care needs
    - Signs and symptoms of postpartum depression
    - When to notify a provider (obstetric and newborn)

- If on methadone, monitor for increased somnolence and contact treatment provider if dose decrease appears necessary.

DISCHARGE PLANNING (SAMHSA FACTSHEET #15)

- Counsel patients to avoid postpartum discontinuation of treatment due to increased relapse rates for SUD after delivery *(NNEPQIN strongly urges the prescription of naloxone at discharge, please see the Naloxone section of NNEPQIN toolkit)*

- Coordinate hospital discharge with addiction treatment provider so treatment can continue after discharge without interruption, this is especially important with methadone treatment which typically requires daily observed dosing.
- For patients on buprenorphine, a provider with buprenorphine waiver can prescribe a prescription at usual dose to bridge patient until next appointment with treatment provider
-

- Provide contraceptive counseling and access to contraception if desired

• Develop Plan of Safe Care/Family Care Plan per state and institutional policy   ○ Engage birthing person, social worker, nursing, and/or pediatric/neonatal team to define plan of safe care.

• Determine discharge pain management plan
  ○ Maximize NSAIDs and nonpharmacologic measures
  ○ If opioids are required at discharge, prescribe only the quantity likely to be used

• Schedule postpartum visits, with first postpartum visit within 1-2 weeks
• Provide education on safe storage and disposal of medications
POSTPARTUM CARE (OUTPATIENT)
CLOSE POSTPARTUM FOLLOW-UP WITH FREQUENT VISITS
• Rescreen and brief intervention for return to substance use (SAMHSA Factsheet #16)
• Provide postpartum depression and anxiety screening
• Screen for intimate partner violence
• Provide smoking cessation reinforcement or continued cessation counseling as indicated.
• Provide on-coercive contraceptive counseling and ensure access to contraception as desired
• Individualize timing of transition to recovery-friendly primary care, and provide support services as needed[6]
• Assess resource needs at each visit and coordinate with case worker/social service providers
• Assist the woman in scheduling appointments for hepatitis C treatment when indicated
• If continuing to breast feed, ensure access to lactation specialist

[6] ACOG, 2018. Optimizing postpartum care Committee opinion #736

3. Perinatal Substance Use Disorder Project and Programs

		PERINATAL SUBSTANCE USE DISORDER PROJECTS/PROGRAMS (see below for description of each)				
Participating NH Hospitals and Other Providers	**Community Served**	**Neonatal Abstinence Syndrome (NAS) Collaborative**	**Perinatal Opioid Use Disorder (OUD) Learning Collaborative**	**NH Pediatric Recovery Friendly Practices**	**21st C Cures Act - Integrated MAT for Pregnant & Postpartum Women**	**Patient Centered Outcomes Research Institute (PCORI)**
Androscoggin Valley Hospital	Berlin	X				
Coos County Family Health Center	Berlin		X		X	
Valley Regional Pediatrics	Claremont		X[I]	X		X[I]
Concord Hospital	Concord	X	X			X
Dartmouth-Hitchcock	Concord		X			X
Memorial Hospital	Conway	X	X			X
Parkland Hospital	Derry	X				
Garrison Women's Health	Dover		X			X
Wentworth Douglass Hospital	Dover	X				
Goodwin Community Health Center	Dover/Somersworth				X	X
Exeter Hospital	Exeter	X				
Lamprey Health Care	Exeter		X			X
Cheshire Medical Center (D-H Keene)	Keene	X	X		X	X
Lakes Region General Healthcare	Laconia	X[II]				
Alice Peck Day Memorial Hospital	Lebanon	X[II]	X[I]	X		X[I]
Dartmouth-Hitchcock	Lebanon	X	X	X	X	X
Littleton Hospital	Littleton	X				
North Country Women's Health	Littleton		X			
Catholic Medical Center	Manchester	X	X			
Elliot Hospital	Manchester	X				
Manchester Community Health Center	Manchester		X			X
Dartmouth-Hitchcock	Manchester/Bedford		X		X	X
Dartmouth-Hitchcock	Nashua		X		X	X
Southern NH Medical Center	Nashua	X				
St. Joseph Hospital	Nashua	X				
Newport Primary Care (affiliated w/New London Hospital)	Newport		X[I]	X		
Monadnock Community Hospital	Peterborough	X				
Speare Memorial Hospital	Plymouth	X				X
Portsmouth Hospital	Portsmouth	X				
Frisbee Memorial Hospital	Rochester	X				

[I] *Prenatal Care is provided by Dartmouth-Hitchcock at this site*

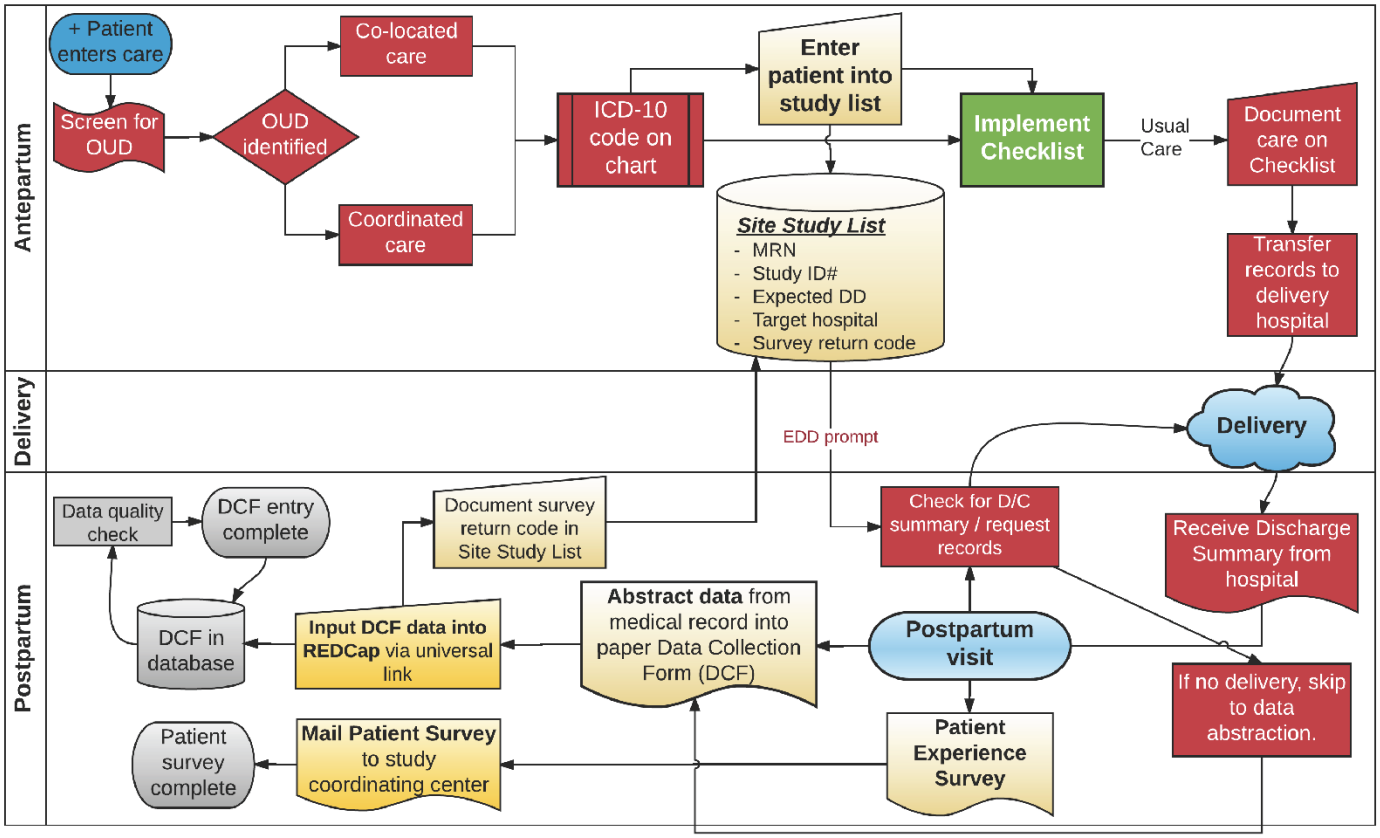
[II] *Practice sites participated in NAS collaborative until Spring 2018 (birthing centers now closed)*

Project / Program Description	Collaborative focused on optimizing newborn outcomes through simplified NAS Eat, Sleep, Console (ESC) assessments, optimal baby- and family-centered non-pharmacologic care, and Plans of Safe/Supportive Care.	Collaborative focused on improving prenatal and postpartum care for women with OUDs and optimizing outcomes for their baby and their family.	Initiative focused on building recovery-friendly pediatric practices to support healthy development of children 0-3 whose caregiver(s) are impacted by addiction.	Integration of MAT including group therapy, care coordination, peer recovery coaching, & other supports.	Observational research study to explore the impact of integrated vs. referral-based models of MAT on maternal & neonatal outcomes.
Target Audience	NNEPQIN providers and community professionals interested in optimizing newborn care.	Selected teams involved in implementing NNEPQIN Toolkit.	Selected NH pediatric practices	Selected NH OB sites	At least 21 sites across NH, VT and ME; currently under recruitment.
Open/Closed Initiative	Open	Open	Closed *(Will be open to others after trial period)*	Closed	Open
Contact Information	**Dr. Bonny Whalen** Bonny.L.Whalen @hitchcock.org	**Daisy Goodman** Daisy.J.Goodman@hitchcock.org	**Dr. Steven Chapman** Steven.H.Chapman @hitchcock.org **Holly Gaspar** holly.gaspar@hitchcock.org	**Dr. Julia Frew** Julia.R.Frew @hitchcock.org	**Daisy Goodman** Daisy.J.Goodman@hitchcock.org

4. Perinatal Opioid Use Learning Collaborative-Data Collection Materials

The following set of materials were developed by Dartmouth-Hitchcock and provided to participants of a data collection learning collaborative aimed at improving care for pregnant patients, starting with universal screening for substance use.

4.1 Process Map



www.nnepqin.org/clinical-guidelines/

4.2 Sample Outcomes Summary Form

Outcomes Summary **Please complete for all OUD patients at 12 weeks postpartum.**	
Did patient transfer care or become lost to follow up prior to delivery?	☐ Yes ☐ No
Date of delivery:	_____(mm/dd/yy)

Social/Behavioral Demographics	
Tobacco/nicotine use during pregnancy:	☐ Non-smoker ☐ Former smoker ☐ Smoked during pregnancy ☐ Quit during pregnancy ☐ Vaped during pregnancy ☐ Used Smokeless tobacco ☐ Nicotine replacement therapy (NRT) → ☐ Unknown *(check all that apply)*
*If **NRT** prescribed, please specify type:*	☐ Patch ☐ Gum ☐ Lozenges ☐ Other *(check all that apply)*
Transportation status:	☐ Has own transportation (driver's license and car) ☐ Receives ride from family member, friend, or partner ☐ Medicaid ride service ☐ Public transportation ☐ Unknown *(check all that apply)*
Housing status:	☐ Rents/owns (includes staying with partner) ☐ Staying with family member ☐ Staying with friend ☐ At risk for losing housing ☐ Incarcerated ☐ Staying in shelter ☐ Unknown ☐ Other: *(check all that apply)*

Integrated MAT-OB Program Treatment History (skip this section if not integrated)	
Did patient continue iMAT program participation through at least 12 weeks postpartum?	☐ Yes ☐ No →
*If **no**, please indicate reason for discontinuation:*	
Number of iMAT program visits prior to delivery:	_____visits
Number of iMAT program visits after delivery (from delivery to 12 weeks postpartum):	_____visits
Additional comments on iMAT participation (optional):	

Prenatal Treatment History	
Did patient transfer care from another prenatal practice?	☐ Yes → ☐ No
***If transferred**, how many visits did patient have at previous provider?*	☐ 1 visit ☐ More than 1 visit ☐ Unknown
***If transferred**, what was the gestational age at first OB visit at previous provider?*	_____weeks
Was MAT treatment for OUD co-located?	☐ Yes ☐ No ☐ Not receiving MAT
Treatment for opioid use disorder during pregnancy:	☐ Methadone ☐ Buprenorphine (Subutex) ☐ Buprenorphine/Naloxone (Suboxone) ☐ Naltrexone, oral ☐ Naltrexone, injectable ☐ No MAT ☐ Other/Unknown *(check all that apply)*
Is psychiatric diagnosis other than OUD included on the problem list?	☐ Yes → ☐ No ☐ Unknown

*If **yes,** please specify psychiatric diagnosis:*	☐ Depression ☐ Anxiety ☐ PTSD ☐ Bipolar ☐ ADHD/ADD ☐ Eating disorder ☐ Other: *(check all that apply)*
Is patient being treated with a psychiatric medication?	☐ Yes ☐ No ☐ Unknown
Did patient receive behavioral health counseling?	☐ Yes ☐ No
*If **yes,** was behavioral health counseling co-located?*	☐ Yes ☐ No
Number of prenatal care visits at your site:	_____visits
Gestational age at first prenatal visit at your site:	_____weeks
Treatment history comments (optional):	

Care Process Measures	
Is a substance use diagnosis included on the problem list?	☐ Yes ☐ No
Is the checklist present in the record?	☐ Yes → ☐ No
If yes, was checklist used?	☐ Yes ☐ No
Was information about the risk of non-prescribed drugs and alcohol given?	☐ Yes ☐ No
Was smoking cessation education and/or treatment given?	☐ Yes ☐ No
Was marijuana use discussed?	☐ Yes ☐ No
Was breastfeeding education given?	☐ Yes ☐ No
Was Naloxone (Narcan) discussed and Rx offered?	☐ Yes ☐ No

Was Plan of Safe Care discussed?	☐ Yes → ☐ No
*If **yes**, was a plan of safe care initiated?*	☐ Yes ☐ No
Did domestic violence screening take place using a validated screener?	☐ Yes ☐ No
Checklist process comments (optional):	

Prenatal Screening	
Hepatitis C antibody screen:	☐ Positive → ☐ Negative ☐ Not tested or results not available
*Hepatitis C **viral load** screen (if Ab positive):*	☐ Positive ☐ Negative ☐ Not tested or results not available
HIV screen:	☐ Positive ☐ Negative ☐ Not tested or results not available
Drug screening in Third Trimester for non-prescribed substances:	☐ Positive → ☐ Negative ☐ Not tested or results not available
*If **positive**, please indicate substance(s):*	☐ Alcohol ☐ Opioids (Heroin, Fentanyl, Buprenorphine, Other pain medications, Methadone) → ☐ Cannabis ☐ Spice (synthetic Cannabis) ☐ Cocaine ☐ Sedatives/Tranquilizers (Ambien, Benzodiazepines, Barbiturates) ☐ Amphetamines/Methamphetamines ☐ Bath Salts ☐ Ecstasy/MDMA ☐ GHB ☐ Ketamine ☐ Inhalants ☐ Over the counter medications ☐ Other: *(check all that apply)*

*If **opioids**, please indicate opioid(s):*	☐ Heroin ☐ Fentanyl ☐ Buprenorphine (non-prescribed) ☐ Methadone ☐ Other pain medications (e.g. oxycodone) *(check all that apply)*
Was patient screened (or re-screened) for hepatitis C in the third trimester?	☐ Yes ☐ No ☐ N/A already known
Was patient screened (or re-screened) for HIV in the third trimester?	☐ Yes ☐ No ☐ N/A already known
Was patient screened for sexually transmitted infections (gonorrhea, chlamydia, or syphilis)?	☐ Yes → ☐ No
Gonorrhea:	***First trimester:*** ☐ Positive ☐ Negative ☐ Not tested ***Third trimester:*** ☐ Positive ☐ Negative ☐ Not tested
Chlamydia:	***First trimester:*** ☐ Positive ☐ Negative ☐ Not tested ***Third trimester:*** ☐ Positive ☐ Negative ☐ Not tested
Syphilis:	***First trimester:*** ☐ Positive ☐ Negative ☐ Not tested ***Third trimester:*** ☐ Positive ☐ Negative ☐ Not tested
Prenatal Complications	
Was patient admitted during pregnancy for any reason other than for delivery?	☐ Yes → ☐ No

*If **yes**, please specify reason for admission:*	

Delivery Outcomes	
Was discharge summary received?	☐ Yes ☐ No
Patient's age in years at time of delivery:	_____years
Gestational age at delivery (weeks and days):	_____weeks_____days
*If **<38 weeks**, please specify reason:*	
Birthweight in grams:	_____grams
Was this a multiple or twin birth?	☐ Yes ☐ No
Mode of delivery:	☐ NSVD (nonsurgical vaginal delivery) ☐ Operative vaginal delivery (vacuum assisted/ forceps) ☐ Cesarean section
Did patient experience severe maternal morbidity during hospitalization?	☐ Yes → ☐ No
*If **yes**, please indicate type of maternal morbidity:*	
Maternal length of stay during delivery hospitalization (elapsed time from delivery to discharge):	_____days
*If **>3 days**, please specify reason for prolonged stay:*	☐ Normal OB management ☐ Complications →
*If **complications**, please specify type:*	☐ Prenatal ☐ Delivery-related ☐ Postpartum ☐ Other
Drug screening for non-prescribed substances at time of delivery hospital admission:	☐ Positive → ☐ Negative ☐ Not tested or results not available

*If **positive**, please indicate substance type(s):*	☐ Alcohol ☐ Opioids (Heroin, Fentanyl, Buprenorphine, Other pain medications, Methadone) → ☐ Cannabis ☐ Spice (synthetic Cannabis) ☐ Cocaine ☐ Sedatives/Tranquilizers (Ambien, Benzodiazepines, Barbiturates) ☐ Amphetamines/Methamphetamines ☐ Bath Salts ☐ Ecstasy/MDMA ☐ GHB ☐ Ketamine ☐ Inhalants ☐ Over the counter medications ☐ Other: *(check all that apply)*
*If **opioids** used, please specify type of opioid(s):*	☐ Heroin ☐ Fentanyl ☐ Buprenorphine ☐ Methadone ☐ Other pain medications (e.g. oxycodone) *(check all that apply)*
What type of feeding was infant receiving at discharge?	☐ Breast milk ☐ Formula ☐ Unknown *(check all that apply)*
Are APGAR Scores available?	☐ Yes → ☐ No
APGAR Scores (1, 5, and 10-minute):	▪ *1-minute:* _____ ▪ *5-minute:* _____ ▪ *10-minute:* _____

Neonatal Outcomes	
Infant length of stay in hospital (days):	_____days
Did baby require NICU care?	☐ Yes → ☐ No ☐ Unknown
*If **yes**, how many days were spent in NICU?*	_____days
Did baby require medication to treat symptoms of neonatal abstinence syndrome (NAS)?	☐ Yes ☐ No

Did umbilical cord or meconium test positive for non-prescribed substances?	☐ Yes → ☐ No
*If **positive**, please specify:*	☐ Alcohol ☐ Opioids (Heroin, Fentanyl, Buprenorphine, Other pain medications, Methadone) → ☐ Cannabis ☐ Spice (synthetic Cannabis) ☐ Cocaine ☐ Sedatives/Tranquilizers (Ambien, Benzodiazepines, Barbiturates) ☐ Amphetamines/Methamphetamines ☐ Bath Salts ☐ Ecstasy/MDMA ☐ GHB ☐ Ketamine ☐ Inhalants ☐ Over the counter medications ☐ Other: *(check all that apply)*
*If **opioids** used, please specify:*	☐ Heroin ☐ Fentanyl ☐ Buprenorphine ☐ Methadone ☐ Other pain medications (e.g. oxycodone) *(check all that apply)*
Was infant referred to DCYF?	☐ Yes ☐ No
Was infant discharged home with patient?	☐ Yes ☐ No → If no, please indicate reason:

Postpartum Care	
Did postpartum visit occur within 8 weeks after delivery?	☐ Yes → ☐ No →
***If yes**, please check all that apply:*	☐ Visit within 2 weeks ☐ Visit within 4 weeks ☐ Visit within 6 weeks ☐ Visit within 8 weeks *(check all that apply)*
***If no** postpartum visit, please specify reason:*	

What type of feeding was infant receiving at postpartum visit?	☐ Breast milk ☐ Formula ☐ Unknown *(check all that apply)*
Did patient receive contraception at hospital discharge?	☐ Yes ☐ No
*If **yes**, please indicate type of contraception:*	☐ IUD ☐ Nexplanon ☐ Depo ☐ Prescription
Tobacco/nicotine use at postpartum visit:	☐ Non-smoker ☐ Former smoker ☐ Smoking at the time of postpartum visit ☐ Quit during pregnancy ☐ Vaped ☐ Used smokeless tobacco ☐ Nicotine replacement therapy (NRT) → ☐ Unknown *(check all that apply)*
*If **NRT** prescribed, please specify type:*	☐ Patch ☐ Gum ☐ Lozenges ☐ Other *(check all that apply)*
Was patient continuing substance use treatment at time of postpartum visit?	☐ Yes ☐ No ☐ Unknown