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The following leads for the project is being acknowledged to recognize their contributions to the project.

Ruth Kennedy, former Medicaid Director, spearheaded the project in 2015 and served as the key operative to identify a team at the state level to work with CMS and to implement the initiative. The Team thanks her for her vision and willingness to commit time and staffing to the project. Thank you also is extended to Susan Fields, the Technical Assistance Lead who helped guide the team through the learning process.

The Louisiana team worked to add other members including community partners and providers. The Team agreed that Neonatal Abstinence Syndrome (NAS) would be the issue of focus for the IAP/SUD Initiative. The Team consisted of professionals who collaborated to review resources and compiled the

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INTRODUCTION

The State of Louisiana has participated in several policy academies, consortia, and innovative projects to help guide the integration of behavioral health services into physical health in order to enhance services and improve patient care. Louisiana’s participation in the Center for Medicare and Medicaid Services (CMS) Innovations Accelerator Program for Substance Use Disorders (IAP/SUD) is just one example of a collaborative effort for stakeholders to come together to address substance use disorders (SUD) and related conditions. Several partners across the state served as the team to help translate the knowledge gained from the experience. Participation in the IAP/SUD initiative’s “high intensity learning collaborative” provided the opportunity to become acquainted with techniques to enhance state capacity and efforts to adopt and disseminate new models. With alcohol and drug related conditions consistently ranking in the top ten diagnoses for re-hospitalizations across the nation, it became apparent that focusing on SUD conditions would be the most cost-effective and efficient approach for Louisiana.

The initiative provided Louisiana the opportunity to advance its state-specific aims and goals to focus on pregnant women with substance use disorders and neonatal abstinence syndrome, as its priority population for substance use disorder services. The IAP goals were to increase early identification, referral to treatment, and engagement by 5% for mothers and babies between birth and 12 months of age who are at-risk for Neonatal Abstinence Syndrome (NAS). Specific committees were formed to address identification processes, resources, data and payment strategies. The Louisiana team worked to identify specific strategies to address the goal which culminated in a comprehensive “Tool Kit” directed toward professionals in health care settings that can be used to make appropriate referrals and address continuity of care issues. The dissemination of the Tool Kit will be an on-going project of the Department of Health and the Department of Child and Family Services, with input from collaborators regarding target audiences.

This Toolkit has been approved by the Louisiana Perinatal Commission, which will serve as a partner for state-wide dissemination and integration into future projects and initiatives.
Overview:

Louisiana is improving the health outcomes of mothers and babies as a participant in the Innovation Accelerator Program for Substance Use Disorders with the Centers for Medicare and Medicaid Services. This collaboration began in January 2015 and provides Louisiana the opportunity to advance its state-specific aims and goals related to substance use disorders. Louisiana has chosen neonatal abstinence syndrome as its priority topic.

The project hopes to increase early identification, coordinated referral and treatment engagement by 5 percent for mothers and babies between birth and 12 months of age who are at risk for NAS when compared to 2013 rates and using baseline data from three pilot sites.

What is neonatal abstinence syndrome (NAS)?

NAS is a group of problems that occurs in a newborn who was exposed to addictive illegal or prescription drugs, including narcotics and opioid pain medications, while in the mother’s womb. Alcohol and other drugs use during pregnancy can also cause problems in the baby.

Two major types of NAS are recognized:

1. NAS due to prenatal or maternal use of substances that result in withdrawal symptoms in the newborn and
2. postnatal NAS secondary to discontinuation of medications, such as fentanyl or morphine used for pain therapy in the newborn.

The project hopes to increase early identification, coordinated referral and treatment engagement by 5 percent for mothers and babies between birth and 12 months of age who are at risk for NAS when compared to 2013 rates and using baseline data from three pilot sites.

To accomplish its initial goals, Louisiana’s project leads and representatives from the Louisiana Department of Health’s offices of Medicaid, Behavioral Health, Public Health, and Citizens with Developmental Disabilities; the Department of Child and Family Services; the Office of Juvenile Justice; the Department of Education; and other interested stakeholders participated in weekly, CMS-sponsored, high-intensity learning collaborative calls and targeted learning opportunity webinars and worked with assigned CMS consultants to draft a Louisiana-specific work plan.

The group also established a substance use disorder (SUD) steering committee and relevant sub-committees to support this process. A repository of needed services and supports, payment reform strategies and data is being developed by partnering with three pilot sites: Woman’s Hospital (Baton Rouge), Louisiana Project LAUNCH (Lafayette) and ACER Substance Use Treatment Center (Slidell).

The Louisiana IAP-SUD project has also partnered with the Perinatal Commission on its NAS legislative resolution. The toolkit that will be developed as a result of the project will be disseminated by the commission with the permission of all providers in the state to address SUD among pregnant women and provides listings of relevant services for their babies.

If you have any questions, you can contact the steering committee leads listed below.

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REFERENCES

Neonatal abstinence syndrome (NAS) is comprised of the signs and symptoms that occur when prenatal exposure to a substance is interrupted at birth. It is typically used to describe opioid exposures from heroin, methadone, buprenorphine, and opioid containing pain medicine. Other substances such as alcohol and benzodiazepines have also been found to predispose the infant to symptoms of neurobehavioral disorganization after birth. The presentation of NAS in the neonate is widely variable in timing of onset, types of symptoms displayed and severity of symptoms displayed. This variability is poorly understood, but is probably due to a myriad of factors which include:

- Maternal exposures - substances used, concurrent use of prescribed medications (particularly psychotropic drugs), timing of exposures during gestation, poly substance use (including alcohol and nicotine)
- Maternal factors - nutrition, infections, stress, comorbid psychiatric conditions
- Placental opioid metabolism
- Genetics, epigenetics
- Infant factors - preterm birth, comorbid infections and other conditions, medications
- Environmental factors - ability of the handlers to respond to infant cueing appropriately, physical environment (NICU versus newborn nursery versus rooming in)
- Severity of NAS is inconsistently related to the dose of the drug of exposure.

NAS is comprised of symptoms of dysfunction in four domains: state control and attention, motor and tone control, sensory integration, and autonomic functioning. Problems in these domains can lead to a host of signs:

- Difficulties with feeding
- Loose stools
- Failure to thrive
- Trouble sleeping and interacting
- Hypertonicity, tremors, exaggerated primitive reflexes
- Autonomic symptoms such as yawning, sweating, nasal stuffiness, sneezing and tachypnea
- Extreme irritability with high pitched cry

NAS is typically evaluated periodically during the neonatal period in infants exhibiting symptoms using scoring tools such as the Finnegan NAS scoring system or the NWI- Neonatal Withdrawal Inventory. These tools provide an assessment of the infant’s NAS symptoms and are used as a guide for beginning and maintaining pharmacotherapeutic interventions. Pharmacotherapy is begun when the infant reaches a threshold numerical cutoff. Only a subset of infants, approximately 60%, are affected severely enough to receive pharmacotherapy for NAS. Preterm infants present a challenge to the practitioner as no tools for NAS evaluation specific to this population exist. In general, preterm infants have shorter courses of NAS and require less medication.

Pharmacotherapy for NAS is variable between institutions, and there is a general dearth of literature to allow the identification of a superior evaluation or treatment algorithm.
Generally, treatment for opioid exposed neonates is with opioid containing preparations such as oral morphine solution or methadone. Secondary medications are employed when the infant’s symptoms are not controlled on monotherapy. Agents typically used as secondary drugs include clonidine and phenobarbital. NAS evaluation and medication should be at intervals no longer than every 4 hours, as lengthier time periods can result in rebound symptoms. Treatment strategies for NAS include weight-based protocols, dosing the infant with medication on a mg/kg basis, and symptom-based protocols, dosing the infant with medication based on the severity of symptoms displayed.

Breastfeeding has been shown to provide some amelioration of NAS severity, but lactation requires a risk/benefit assessment of the substance dependent woman.

NAS is not defined by the need for pharmacotherapy, and all substance exposed infants, regardless of the need for medication, should receive non-pharmacologic, supportive care after birth. Supportive care interventions individualize the care of the infant based on behavioral observations, with the goal of promoting organization, physiologic stability and competence. The environment should be modified to support the infant’s autonomic, sensory, motor and interactive development based on the infant’s demonstrated strengths and weaknesses. Parental involvement should be encouraged to allow the caretaker to understand the newborn’s condition, and to develop a care plan to support the infant’s developmental requirements after hospital discharge. Early identification of a pediatrician to assume care of the newborn immediately after hospital discharge is important, as a small subset of infants can present with significant NAS symptoms at home as late as day 7 of life.
Use of legal and illegal substances occurs in all racial, ethnic, and socio-economic groups. The use of tobacco and alcohol, misuse of prescription medications, as well as the use of illegal drugs contribute substantially to maternal, fetal, and neonatal morbidity and mortality. Recent increases in the rate of neonatal abstinence syndrome related to prenatal exposure to opioid drugs has prompted national attention to address substance use during pregnancy. Pregnant women misusing substances are at greater risk for HIV infection, hepatitis C infection, and intimate partner violence than the general population. In addition, there is increasing evidence that use of some of these substances during pregnancy can have long-term impact on the child’s development and behavior.

### Illicit Drugs and Non-Medical Use of Prescription Drugs

#### Nationally
- 16.2% of pregnant teens and 7.4% of pregnant women ages 18 to 25 are using illicit drugs according to the 2010 National Survey on Drug Use and Health from the Substance Abuse and Mental Health Administration. Overall, 4.4% of pregnant women were active illicit drug users.\(^3\)
- Rates of neonatal abstinence syndrome (NAS), drug withdrawal in the newborn, have almost tripled between 2000 and 2009.
- 18.1% of 18 to 25 year olds report illicit drug use and 5.9% report the non-medical use of prescription drugs.

#### In Louisiana
- The national rate of death from opioid overdose is 11.9/100,000 population. Louisiana ranks 11th in the nation at 15/100,000 population. (CDC: MMWR Overdose of Prescription Opioid Pain Relievers)

#### Alcohol Use

#### Nationally
- An estimated 10.8% of pregnant women report current alcohol use, 3.7% report binge drinking and 1.0% report heavy drinking. Of special concern, 10.1% of women 15 to 44 years old report binge drinking during the first trimester of pregnancy; often before they knew they were pregnant.\(^3\)
- An estimated 1-2 infants per 1,000 live births has Fetal Alcohol Syndrome (FAS). Fetal Alcohol Spectrum Disorder (FASD) is estimated to occur in 3 – 6 infants per 1,000 live births.
- Fetal Alcohol Syndrome is one of the most common known etiologies of intellectual disability. Children with fetal alcohol syndrome often have severe ADHD and complex learning and behavior problems in addition to the physical and global intellectual problems associated with the disorder.

#### In Louisiana
- 51% of women of childbearing age in Louisiana report any consumption of alcohol and 14.5% report binge drinking.

[http://www.cdc.gov/ncbddd/fasd/data.html]
This toolkit was created for healthcare providers to:

- Provide key information about the impact of legal and illegal substances on a woman’s pregnancy and on the unborn child.
- Encourage use of evidence-based practices and tools to improve care and decrease risks associated with substance use during pregnancy and address co-morbid conditions such as depression, and intimate partner violence.
- Improve collaboration among primary care and behaviorah health treatment providers in the care of pregnant women.

The screening, brief intervention and referral to treatment (SBIRT) approach has been shown to be effective in motivating individuals to make behavior changes necessary to address substance abuse. The toolkit incorporates this approach and provides information about how to implement the process in a primary care setting. Screening tools and procedures are described as the first step to identify pregnant women at risk. Brief counseling techniques are outlined to build rapport with patients, share information about risks, build readiness to change and negotiate a plan for change. Billing codes are summarized for reimbursement of SBIRT services. Patient educational resources and a directory of referral resources for treatment and supportive services have been compiled for use by healthcare providers. Additional resources about medication-assisted treatment, neonatal abstinence syndrome and care management are included in the toolkit.

*Adaptations were made from the Maryland Substance Use in Pregnancy Toolkit, the Washington Substance Abuse During Pregnancy: Guidelines for Screening and Management, and the Louisiana Woman’s Hospital Toolkit for Maternal Substance Use and NAS.*
SCREENING, BRIEF INTERVENTION, REFERRAL FOR TREATMENT - SBIRT
SBIRT is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services for persons with substance use disorders and other behavioral health conditions as well as those who are at risk of developing these disorders. Primary care centers, hospital emergency rooms, trauma centers and other community settings provide opportunities for early intervention before more severe consequences occur.

- Screening quickly assesses the severity of substance use and identifies the appropriate level of intervention.
- Brief intervention focuses on increasing insight and awareness regarding substance use and motivation for behavioral change.
- Referral to treatment provides those identified as needing more extensive treatment with access to specialty care.

**Screening**

Physicians, nurses, others involved in prenatal care play an important role in improving the health of mothers and their babies. It is the responsibility of every practice to make sure that all pregnant and postpartum women are screened for drug use, both legal and illegal substances, as well as depression and domestic violence. The practice of universal screening increases the likelihood of identifying substance use and other behavioral health problems among pregnant women to allow for the earliest possible intervention or referral to specialized treatment. Screening should occur at the initial visit, at least once every trimester, and at the postpartum visit for every pregnant woman.

A table of screening tools is included in the toolkit for reference on pages 43-49. Some can be given to the patient to complete in writing while she is waiting for her provider, while others are a set of questions to be asked by staff. You should choose the one that best fits your practice and patient flow. It is important to document the tool you use for screening, any positive results, along with intervention. Counseling about the risk factors, even if the screening is negative, is important since the first screen may not pick up everyone. Counseling also provides education to prevent onset of new risks. Early intervention involves discussing your concerns with the patient and beginning the process of further evaluation and/or treatment if appropriate.

**Initial Visit:**

- Screen Everyone – Providers should be aware that they will miss many cases if they screen based on their personal perception of risk (physical appearance, socioeconomic status, age, race, or ethnicity).

- Conduct Screening in Private:
  - It is important to screen in a private place and with the person alone.
  - This protects the individual’s right to privacy.
  - Screening her alone is important as she may be unwilling to confess to alcohol or substance use/abuse (or intimate partner violence) in the presence of a partner or a friend.

- Conduct an extensive inquiry about drug, alcohol, and tobacco use:
  - Legal drugs – including prescriptions written by a different provider
  - Illegal substances
  - Alcohol
  - Tobacco products including smokeless products

- Consider inquiring about the person’s use in three time periods
-Ever
-During the three months prior to getting pregnant
-During the interval after conception but prior to this first visit

- Select a process for screening:
  -Completed standardized questionnaire (print version, computer version, self-administered or administered by staff member)
  -Asked by clinician as part of history
  -included by clinician or nurse in a “review of systems”

At Follow-Up Visits:

- For those who screened positive at the initial visit, include questions about any alcohol, tobacco product, or drug (legal or illegal, prescribed or not) since the last visit at each visit
- For those who screened negative at the initial visit, re-screen each trimester

This re-screening is important because new use may be uncovered and also because the patient may disclose more as she gets more comfortable with the clinical staff over time.

It is also recommend screening for depression and for intimate partner violence, using the same screening schedule – first visit, each trimester, and at the postpartum visit.

Screening and Intervention for Opiate Use in an Obstetric Patient

A screen is done at the initial intake or first obstetrical visit.

- Use a validated screening tool
- Check for signs of intoxication or withdrawal?
- Consider checking the prescription monitoring program
  -Develop a script to inform the patient that you routinely check the PMP: For example; “We also would like to let you know we routinely check the State’s Prescription Monitoring Program, a database which allows us to keep up with certain classes of prescribed medications our patients may be taking. We may also ask your permission for a urine drug screen during your pregnancy.”
- Is there a history of chronic pain treated by another physician?
  -Check the Louisiana Prescription Monitoring Program to verify that the patient is receiving prescriptions as reported and is not receiving duplicate prescriptions or prescriptions for drugs that increase the risk for the mother and fetus such as benzodiazepines and/or sedative hypnotics.
  -Obtain consent for release of information and to speak with the prescribing physician, the pediatrician, and all members of the health care team.
  -Develop the health care team you will need to care for your patient: obstetrics, pediatrics, mental health and addiction, pain medicine, social services. Add any referral that can be used as an adjunct for the treatment of chronic pain (physical therapy).
  -Establish who will prescribe, what the dose will be, and the duration of treatment.
  -Make sure your records prominently show that the patient has chronically used opiates and that your partners are aware.
Refer to Figure 1: Pregnant Patient on Chronic Opioid Therapy, to review a sample trajectory of care.

![Algorithm for the approach to the pregnant patient prescribed chronic opioid therapy](image)

Fig. 1. Algorithm for the approach to the pregnant patient prescribed chronic opioid therapy

Meyer, OB GYN Clin North Amer 2014
When Screening Is Negative

Counseling about the risks of alcohol, tobacco, and drug use outside of what has specifically been approved by the clinician should occur following screening, even when the person denies use. If the screening is negative, it is important to emphasize the following points:

- Affirm the patient’s choice to not use alcohol, tobacco, illegal drugs, or prescription and over-the-counter medications except those cleared by her doctor.
- Emphasize that this is important because the substances can cause increased risks to her during pregnancy and may cause long-term damage to the unborn baby.
- Advise to continue to avoid alcohol, tobacco, and drugs and to check with her doctor before taking any medications.

When Screening is Positive

When screening is positive, ask further questions to assess on-going tobacco, alcohol, or drug use and provide intervention to address substance use and any other co-morbid behavioral health problems.

When substance use is disclosed, more questions are necessary to define the problem including details about what drugs, when, how often and how much. This further assessment might be done by the healthcare provider and/or by an addictions specialist. However, the healthcare provider will need to ask enough questions to determine whether this is an on-going problem and whether it is something that the person could easily address through brief intervention or is likely to require professional help. Counseling is specific to the identified issue and intervention should be directed at helping the patient recognize the risk of her substance use and co-occurring problems and facilitating further treatment, if warranted.

Depression Screening and Mental Health Referral

Pregnant women may experience mental health issues during and/or after their pregnancy. Pregnant and postpartum women should, at a minimum, be screened for depression. The Edinburgh Postnatal Depression Scale and the Patient Health Questionnaire, PHQ-9, have been used extensively with both pregnant and postpartum women. The Edinburgh Postnatal Depression Scale is a reliable instrument for screening. It is easy to administer and score and may be reproduced without permission as long as the authors’ names, titles and source of the paper are included. A copy along with scoring directions is attached in the Appendix of this document. If a woman scores positive on the EPDS or has current symptoms suggesting a mental health disorder, she should be referred for a mental health evaluation.

Finding a provider is based on what kind of health insurance, , the woman has. It may be helpful to have a member of your staff assist the patient in making phone calls to locate a provider. Ideally, she should not leave your office until she has an appointment scheduled.

Screening Tools – See Appendix I

Brief Intervention

Brief interventions are evidence-based practices designed to motivate individuals at risk of substance abuse and related health problems, to change their behavior by helping them understand how their substance use puts them at risk and to reduce or give up their substance use. Healthcare providers can also use brief interventions to encourage those with more serious dependence to accept more intensive treatment within the primary care setting or a referral to a specialized alcohol and drug treatment agency.
In primary care settings, brief interventions last from 5 minutes of brief advice to 15-30 minutes of brief counseling. Brief interventions are not intended to treat people with serious substance dependence or other behavioral health disorders. Skillfully conducted, brief interventions are essential to successful SBIRT implementation and have been shown to be very effective. Brief interventions are low cost, quick, patient friendly, easy to do, and a variety of staff can learn how to conduct brief intervention. Clinic staff guides the patient to develop a plan for change. A brief intervention focuses on whatever small steps the patient is willing to make. Many of the tools used in brief intervention are based on motivational interviewing concepts. See additional information in Appendices.

The Brief Negotiated Interview Algorithm is an easy step by step guide to providing brief intervention in a clinic setting. It is based on building rapport with patients, providing feedback about screening results, facilitating readiness to change, and negotiating a plan for change. Training on this process is available through the LA-SBIRT program by contacting Betsy Wilks at betsyw@lsu.edu

**Brief Negotiated Interview (BNI) Algorithm (Specific to Pregnant Women)**

<table>
<thead>
<tr>
<th>BNI Step</th>
<th>BNI Script</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build Rapport</td>
<td>Hello, I am ____. My role here with patients is ______.</td>
</tr>
<tr>
<td>Raise the subject</td>
<td>Would you mind taking a few minutes to talk with me about your use of [X] and how it relates to your pregnancy and your health?</td>
</tr>
<tr>
<td>Ask permission</td>
<td>Before we start, can you tell me a little bit about a typical day in your life? Where does your use of [X] fit in?</td>
</tr>
<tr>
<td>Explore the pros and cons of use</td>
<td>Help me understand, through your eyes, the good things about using [X].</td>
</tr>
</tbody>
</table>
| Summarize                 | What are some of the not-so-good things about using [X]?
|                           | So, on the one hand you say when you use [X], _PROS_, and on the other hand _CONS_. |
| Provide Feedback          | I have some information about drinking and drug use, would you mind if I shared them with you? |
| Ask permission to share information | During pregnancy, we know that [X] can cause problems like [insert medical information]. |
| Give information.         | What are your thoughts on that?                                            |
| Discuss screening findings |                                                                           |
| Evoke a reaction          |                                                                           |
See pages 52-65 of the Toolkit for the Table of Substances and Their Effects During Pregnancy

Summary of highlighted effects:

- Alcohol – major risks for the baby – most common preventable cause of intellectual disability, risks of major learning and behavior problems, congenital anomalies
- Opioids/ narcotics – drug withdrawal for the baby and difficulty with self-regulations for months afterwards
- Cocaine, stimulants, methamphetamine, hallucinogens – risks of stroke for mother or baby, premature delivery, too small a baby, difficulty focusing on caring for yourself and for the baby, neglect of the baby, etc.
- Tobacco and marijuana – risks of premature delivery, too small a baby, respiratory problems for the baby, SIDS, and hyperactivity risks in the child
Brief Invention: Principles of Motivational Interviewing

Asking is not enough. How you ask is just as important.

The definition of Motivational Interviewing: “Motivational Interviewing is a collaborative, goal-oriented style of communication with particular attention to language of change. It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person’s own reasons for change within an atmosphere of acceptance and compassion.” Miller and Rollnick (2012)

No matter how skilled, passionate and talented you cannot solve all your patients’ problems; patients need to be part of the process. However, you do possess the expertise to guide patients toward finding her own solutions, to give her the tools to self-manage and to make transformative changes.

This truth lies at the heart of motivational interviewing (MI) – collaborative, patient-centered conversation that strengthens the patient’s own motivation to change. Ultimately, it’s about effective, two-way communication. Communication includes talking and listening.

Communication is an essential skill for all healthcare professionals.

Motivational interviewing is a clinical method, a guiding process that seeks to bring forth and strengthen a person’s motivation for change, explained Michael G. Goldstein, MD, associate chief consultant for preventive medicine, Veteran’s Health Administration (VHA), National Center for Health Promotion and Disease Prevention.

MI is patient-centered, collaborative and fully respectful of the patient’s autonomy and preferences, he said. It helps patients sort through their thoughts, ideas and often-ambivalent feelings about their current situation and possibilities for change.

Care elements of motivational interviewing: (One Format Option)

Collaboration: Collaboration is key to both communication and patient-centered care. The conversation is non-authoritarian and nonjudgmental. “We want to support them even when they are not following through the way we would like them to.”

Evocation: The patient is the expert, and the healthcare provider must explore what is important to that patient. When patients express their reasons for change, patients are more likely to take action. One test of how well you are doing this, said Goldstein, is to ask, “Who is doing most of the talking?” If it is not the patient, you may not be doing MI, he cautioned. The patient’s own experience may be the answer to helping enhance motivation. “After all, it is their health.”

Autonomy: It is the patient who is in charge. The encounter doesn’t involve coercion or argument. Clinicians remain nonjudgmental about whether their patients choose to change, and the case manager seeks patient permission before moving forward. Any decision is entirely up to the patient. This approach acknowledges a basic truth. Goldstein said: “Patients will end up doing what they want to do.”

This spirit informs the principles and practice of MI from listening and understanding to planning and “change talk.”

The basic principles of MI reflect its spirit; they are summarized with the acronym RULE:

Resist the “righting reflex.”

It is easy to assume the role of the expert in exchanges with patients. “We sometimes fall into the trap of trying to fix them rather than help them
understand themselves,” Goldstein said. But even though you may indeed be the expert and have the patient’s best interest at heart, “people just do not like to be told what to do.” He warned. “If we are to help guide the patient to make their own decisions in their best self-interest, we have to avoid correcting the patient’s behavior.” Instead, seek to...

**Understand your patient’s motivations.** Work from where the patient is now, not where you want the patient to be. Understand what the patient thinks and feels about the issue at hand. What is important to them? What are their feelings and concerns? Ask, Goldstein said. Don’t tell...

**Listen to your patient.** Specifically, engage in reflective listening: Listen, then reflect back what you think the patient said or meant. This is how you find out why the patient might – or might not – want to change a particular behavior. This can help you...

**Empower your patient.** Build confidence. Support the patient’s ability to change or improve health behavior. Make it clear you have every confidence in their ability to change, and review and emphasize past successes. This must be genuine and sincere, not patronizing.

**The Motivational Interview Process**

The process has four stages:

1. **Engaging.** To get the patient engaged is essential, and a prerequisite to everything else.
2. **Focusing in on something the patient is willing to work on.** The process includes collaborating on an agenda, finding a strategic focus, addressing ambivalence and then sharing information and advice.
3. **Evoking the patient’s motivation.** This is where the desire for action begins to be expressed. This involves listening, selective responding and selective summaries.
4. **Planning.** The last phase it involves moving to an action plan that addresses barriers. It also involves obtaining commitment.

Although each phase is important to the process, the first is both fundamental and essential: Nothing happens without engagement.

**Engagement: building a relationship**

The goal of engagement is to build a therapeutic relationship and understand the patient’s reality – feelings, beliefs, values, and concerns about change. Engagement provides the opportunity to identify what’s important to the patient and his or her level of confidence about taking action, Goldstein said. Recognize and affirm strengths and motivation, and accept without judgment what you have learned.

“Distill the motivation that is there, accept ambivalence when it’s there,” he counseled. “Roll with resistance.”

He shared four strategies that are central to engagement – and that are care skills of MI. The acronym for these four strategies is OARS:
Open-ended questions
This is the key to understanding the patient’s perspective and motivation – and eliciting “change talk.”

• “What are you currently doing that helps you to manage your diabetes?”
• “Tell me more about your interest in staying healthy.”
• “What worries you the most about your heart condition

The questions go to motivation and current activity – as well as to what worries them. Such questions identify opportunities for and barriers to change.

Affirmation involves recognizing and reinforcing the patient’s efforts and strengths by making statements that support her ability to follow through with what she wants, or recognize her strengths, past and present. But the affirmation must be genuine and real—not patronizing. He offered some examples:

• “I am pleased that you were willing to come in today to check on your blood pressure, despite all that is going on.”
• “I appreciate your honesty about not taking the medication. I would like to hear more about your concerns or what got in the way.”

Reflection – or reflective listening – is the intentional use of listening to seek, clarify and deepen understanding. It allows for hypothesis testing and creates awareness of gaps in understanding for both the patient and the healthcare professional. MI is built on this skill, he said. However, “It is one of the harder things to learn. Reflective listening requires not only attention and active listening, but also reflecting back what we hear in an effort to confirm, clarify and deepen our understanding of the meaning of what the person is saying.”

After making a reflection, it is important for the listener to wait for the speaker to respond. This allows the speaker to verify, correct and elaborate as needed. Note the difference: “So, you are trying to please your spouse?” vs. “So, you are trying to please spouse.” The latter is a reflective statement of understanding. It’s a statement, and the voice goes down.

These are various levels of reflection, he explained.

• Simple: repeating the words back to the patient
• Complex: reflecting feelings, concerns, values, and deeper meaning (e.g., “It’s really important for you to make sure you are there for your wife and kids.”).
• Summaries: reflections that contain a summary of the speaker’s statements.

Summary, a form of reflective listening, entails understanding, eliciting more and reinforcing “change talk.” It is a way to begin to move the interaction – increasing focus and/or planning (e.g., “So where would you like to go from here?”) It also gives the case manager a chance to collect herself and check her assumptions.

Goldstein likens summaries to a bouquet. The case manager gathers flowers – each of which represents a piece of “change talk” – then puts them in a bouquet. He offered the following example:

“So, you mentioned several reasons for working on healthy eating and meal planning, including being able to reduce the number of meds you are taking for your diabetes. You also want to gain better control over your diabetes and want to avoid the complications your mother had. You are frustrated by previous attempts to work on your weight, but you have had some success in the past. I would like to help you develop a plan that will work for you.”
Dancing, not wrestling
MI is conducted by working with, rather than at, the patient.” The interaction represents a collaborative effort in the interest of the patient, and can be viewed as a partnership – it is, Goldstein explained, like dancing, not wrestling.
“We are in sync, linked, connected, moving together. We take one step forward hoping the patient comes with us.” And sometimes, he added, being in dance means following the patient’s lead for a while. “It becomes a collaborative, even artistic, way of working together.”
As with dance, achieving this level of coordination and partnership takes time and practice. Done well, you will have a patient who is engaged, activated, motivated, empowered and confident, he said. “If we dance with the patient by working with him or her rather than directing – guiding rather than wrestling – we are much more likely to promote meaningful change and be satisfied with the result.”

Impact of Substance Use Disorders on Mother, Fetus, Infant and Child

An Overview
Substance misuse impacts the pregnant woman’s health in a wide variety of ways. Table 1 below provided on the next several pages details the specific impact of each substance on the mother’s health, the fetus’s health, and the long-term impact on the child from intrauterine exposure. However, the effects of any single drug or the use of alcohol is confounded by the synergistic effects of other agents. Simultaneous use or abuse of multiple substances is a common occurrence. To date, it has been challenging to isolate the effects from a single substance or to provide an accurate assessment of the impact of specific combinations of drugs. Research has generally not taken into account co-existing use of tobacco and/or alcohol that may have a substantial effect on the pregnancy and the infant too. Route of administration of the drug may cause additional complications. Also substance abuse often is associated with poor nutrition, inadequate sleep, and failure to address other medical problems in a timely fashion. All of these may compound the impact of substance misuse on the pregnancy and the health of the mother and baby.

Tobacco Use
In Louisiana in 2011, 13.8% of women reported smoking during their last 3 months of pregnancy. Few studies of the effects of drugs on the pregnant woman and the developing fetus take into account tobacco use, despite the fact that tobacco use is increasingly associated with significant pregnancy complications and subsequent problems for the child after birth. Of note, 88 - 93% of those in substance use disorder treatment report continuing to smoke at least some throughout pregnancy.

Smoking cigarettes is linked to an increased risk for placental abruption (relative risk of 2.5) and doubles perinatal mortality risk. Maternal tobacco use decreases birth weight on average by 135 to 300 grams and results in smaller neonatal head size. There is increased risk of fetal growth restriction (relative risk of 1.3 to 16) and an increase in pregnancy loss. Maternal tobacco use has an additive or synergistic effect on the maternal and fetal effects of both alcohol and substance use. In utero exposure to tobacco has been linked to increased externalizing behavior problems, especially Attention Deficit Hyperactivity Disorder, and possibly to some increased incidence of learning problems. Often women resume smoking after delivery but exposure to secondhand smoke significantly increases the rates of Sudden Infant Death Syndrome, respiratory infections, and asthma in infants and young children.
Drug Use
Route of drug administration affects the medical risk both in terms of rapidity of drug absorption and in terms of additional medical risks incurred because of the route used. For instance, intravenous use increases the risk of bacteremia, endocarditis, cardiac disease (often due to inadequately treated endocarditis), hepatitis B and C, and HIV/AIDS. Intra-nasal use increases risk of nasal, sinus, laryngeal and respiratory infections and malignancy. Increasingly, prescription narcotics are being crushed and either injected or snorted.

Medical Complications
Complications of substance use include spontaneous cellulitis/abscesses (often MRSA positive) at multiple sites and severe dental disease (both a result of chronic substance abuse and neglect). Pre-existing medical conditions often are present and may be in poor control. These medical conditions include diabetes, hypertension and heart disease, seizure disorder, and severe asthma.

Sexually Transmitted Infections (STIs)
Women with substance use disorders have an increased risk for all STIs including HIV/AIDS, hepatitis B and C, gonorrhea, chlamydia, trichomoniasis, genital herpes, and syphilis. These STIs, especially if untreated, may have a very negative impact on the pregnancy, fetus, and/or neonate.

Psychiatric Co-morbidity
Psychiatric problems often exist in the presence of substance abuse in the pregnant woman. Up to 70% of those with substance misuse have significant co-occurring psychiatric illness. Half of these require medication during pregnancy. An estimated 30 - 59% of pregnant women with substance use disorder have post-traumatic stress disorder (PTSD), often the result of childhood physical and/or sexual abuse. Appropriate psychiatric intervention is important to address psychiatric disorders for which the woman may have been self-medicating with their substance misuse.

Obstetrical Complications
Preterm delivery (prior to 37 weeks) occurs in up to 30% of substance abusing pregnant women, from a variety of causes including preterm rupture of membranes. Other increased obstetrical complications include fetal growth restriction/low birth weight, abruptio placenta, meconium in utero, chorioamnionitis, maternal hypertension, and fetal non-reassuring status in labor.

Neonatal Abstinence Syndrome (NAS)
NAS is best defined for in utero opioid exposure. However, there is evidence that poly-drug abuse may increase both the severity and duration of NAS. Other drugs of abuse, such as benzodiazepines, may be associated with withdrawal symptoms that are less well defined.

Long-term Sequelae
Some of these observed problems are directly related to the fetal exposure to drugs, tobacco or alcohol. Others are related to the poor nutritional status and/or poor health of the pregnant woman who is abusing the drugs. Still others are related to maternal depression and/or child neglect and abuse that occur more frequently in households with a parent who misuses substances, especially when that parent is the sole parent for the child. The complications of substance use and abuse contribute to challenges in providing obstetric care for patients. However, careful attention to the details of these potential complications and collaboration among the people providing care often improve outcomes substantially.

Screening, Brief Intervention, Referral for Treatment - SBIRT
### Table 1: Impact of Substance Use Disorders on Mother, Fetus, Infant and Child

<table>
<thead>
<tr>
<th>Classification and Examples</th>
<th>FDA Pregnancy Category*</th>
<th>Potential Maternal Effects</th>
<th>Potential Fetal Effects</th>
<th>Potential Infant/Child Effects</th>
<th>Dr. Hale’s Lactation Category**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Product and Street Names</td>
<td>Information not found</td>
<td>✓ Central nervous system depressant ✓ Withdrawal symptoms with cessation after ≥ 6 drinks per day ✓ With withdrawal, increased risk for tremor, ataxia, sweating, hypertension, tachycardia, GI upset, anxiety, seizures, hallucinations, and arrhythmias</td>
<td>✓ Increased risk for intrauterine growth restriction ✓ Increased risk for miscarriage ✓ Increased risk for fetal death ✓ Increased risk for Fetal Alcohol Syndrome</td>
<td>✓ Low birth weight (&lt;2500 g) ✓ Small head and brain ✓ Deformities of face and limbs consistent with Fetal Alcohol Syndrome ✓ Potential for poor habituation and lower levels of arousal ✓ Developmental delays ✓ Behavioral difficulties including Attention Deficit Hyperactivity Disorder and impulse control problems ✓ Increased potential for interference of language development and learning disorders ✓ In childhood there is potential for birth defects</td>
<td>L3 Benefits of breastfeeding usually outweighs risk Use while breastfeeding may cause decreased milk production and neurobehavioral effects on the infant</td>
</tr>
<tr>
<td>Classification and Examples</td>
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<tr>
<td>--Amphetamines</td>
<td>C</td>
<td>Limited data is available but no negative maternal effects seen other than slight increased heart rate or blood pressure for some, when used in the prescribed range for treatment of Attention Deficit Hyperactivity Disorder (ADHD)</td>
<td>Limited data available show no adverse fetal effects seen from stimulants, when used in the prescribed range for treatment of Attention Deficit Hyperactivity Disorder (ADHD)</td>
<td>Increased risk of delinquency, criminal behavior, and substance later in life</td>
<td>L3/L5 Risk of breastfeeding usually outweighs benefit</td>
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<tr>
<td>Generic and Trade names</td>
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<td>Legal</td>
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<tr>
<td>• Amphetamine Salt - Adderal</td>
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<td>• Dextro-Amphetamine Sulfate - Detadrine and Dextrostat</td>
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<tr>
<td>• Dexmethyhexadidate</td>
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<td>• Lisdexametamine Dimesylate-Pyvanse</td>
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<tr>
<td>• Methylphenidate - Concerta, Focalin, Daytrana, Metadate, and Ritalin</td>
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</tbody>
</table>

*FDA Pregnancy Category: Category C indicates that there is limited human data or animal data and/or there is the presence of fetal risk.

**Dr. Hale’s Lactation Category: L3/L5 indicates that the medication is not recommended for breastfeeding due to risk of adverse effects on the infant.
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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Amphetamines</strong> Drug and Street Names</td>
<td>Information not found</td>
<td>✓ Increased heart rate, blood pressure, and temperature&lt;br&gt;✓ Increased risk of arrhythmias&lt;br&gt;✓ Paranoia&lt;br&gt;✓ Increased risk for placental abruption&lt;br&gt;✓ Increased risk of premature rupture of membranes and preterm delivery&lt;br&gt;✓ Brain damage in overdose&lt;br&gt;✓ Ecstasy causes inability to regulate temperature leading to liver, kidney, cardiovascular damage and potentially death&lt;br&gt;✓ Ecstasy can cause confusion, depression, and sleep difficulties, anxiety, and panic attacks</td>
<td>✓ Increased risk of intrauterine growth restriction&lt;br&gt;✓ Potential for cerebral infarction (stroke)&lt;br&gt;✓ Slightly increased risk of cardiovascular and genitourinary tract abnormalities&lt;br&gt;✓ Ecstasy can cause the potential for fetal death due to increase in maternal temperature</td>
<td>✓ Small for gestational size and low birth weight (&lt;2500 g)&lt;br&gt;✓ If mother is intoxicated at delivery, neonates may demonstrate irritability, tremors, muscular rigidity, vomiting and diarrhea&lt;br&gt;✓ Subtle problems with dysregulation in infancy&lt;br&gt;✓ Some studies have found subtle learning differences</td>
<td>Information not found</td>
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<tr>
<td><strong>Amphetamines</strong> Drug and Street Names Synthetic</td>
<td>Information not found</td>
<td>✓ Rapid heartbeat which can lead to heart attack and stroke&lt;br&gt;✓ Chest pain&lt;br&gt;✓ Nose bleeds</td>
<td>Information not found</td>
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<tr>
<td><em>Bliss, Cloud Nine, Drone, Purple Wave, Vanilla Sky, White Knight, and White Lightening</em></td>
<td>D</td>
<td>✓ Increased sweating ✓ Nausea and vomiting ✓ Agitation, insomnia, irritability, and panic attacks ✓ Dizziness ✓ Depression, paranoia, delusions, and suicidal thoughts ✓ Seizures</td>
<td>Information not found</td>
<td>✓ Respiratory problems at birth ✓ Increased risk of birth defects – especially cleft lip and palate, and cardiac and spine defects ✓ Bleeding in newborn ✓ Physical dependence and withdrawal at birth</td>
<td>L3</td>
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<td><strong>Barbiturates</strong></td>
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<tr>
<td>Generic and Trade names</td>
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<tr>
<td>• Amobarbital</td>
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<td>• Mephobarbital - Mebaral</td>
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<td>• Pentobarbital</td>
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<td>• Phenobarbital - Nembutal</td>
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<td>• Secobarbital - Seconal</td>
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<td>Benzodiazepines</td>
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<td>Generic and Trade names</td>
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<tr>
<td>• Alprazolam - Xanax</td>
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<tr>
<td>• Chlordiazepoxide HCL - Librium</td>
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<td>• Clonazepam - Klonopin</td>
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<td>• Clorazepate -</td>
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<td></td>
<td>D</td>
<td>✓ Central nervous system depressant</td>
<td></td>
<td>✓ Possibly increased risk of cleft lip and/or palate with first trimester use ✓ Preterm Delivery</td>
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<td></td>
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<td></td>
<td>✓ Use prior to delivery can cause “floppy baby syndrome” ✓ Low birth weight (&lt;2500 g) ✓ Postnatal withdrawal symptoms include diarrhea, vomiting, muscle weakness, irritability, tremors,</td>
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<tr>
<td>Tramoxene</td>
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<td></td>
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<td>and sleep disturbance</td>
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<tr>
<td>• Dizepam - Diasta and Valium</td>
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<td></td>
<td></td>
<td>Third trimester use is associated with problems with temperature regulation and apnea which may last hours to months after birth</td>
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<tr>
<td>• Flurazepam - Dalmane</td>
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<td>• Lorazepam - Ativan</td>
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<td>• Midazolam HCL Versed</td>
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<td>• Oxazepam</td>
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<tr>
<td>• Temazepam - Restoral</td>
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<td>• Triazolam - Halcion</td>
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<tr>
<td><strong>Caffeine</strong></td>
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<tr>
<td>• Coffee</td>
<td>Information not found</td>
<td>✓ Central nervous system stimulant</td>
<td>✓ Increased chance of miscarriage and fetal death with high dose consumption (&gt; 800 mg)</td>
<td>• At birth: Fast heart rate Tremors Fast respiratory rate with dose consumption of &gt;500 mg</td>
<td>L2</td>
</tr>
<tr>
<td>• Tea</td>
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<td>• Supplements</td>
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<td>• Combination products with alcohol</td>
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<tr>
<td>• Combination prescription and non-prescription medications</td>
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<tr>
<td><strong>Cannabis</strong></td>
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<tr>
<td><strong>Type and Street Names</strong></td>
<td>Information not found</td>
<td>✓ Increased heart rate and risk of heart attack</td>
<td>✓ Increased risk of palpitations and arrhythmias</td>
<td>✓ Increased risk of premature birth</td>
<td>L5</td>
</tr>
<tr>
<td>• Marijuana - Pot, Gange, Weed, Grass, 420, Boom, Aunt Mary, Blunts, Chronic, Dope, Hash, Joint, Mary Jane, Reefer, Skunk, and Smoke</td>
<td></td>
<td></td>
<td></td>
<td>✓ Low birth weight (&lt;2500 g)</td>
<td>Risk of breastfeeding usually outweighs benefits</td>
</tr>
<tr>
<td>• Legal Medical Marijuana – Marinol, Cesamet, and Sativex</td>
<td></td>
<td></td>
<td></td>
<td>✓ Decreased height and head circumference</td>
<td></td>
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<tr>
<td>• Cannabis</td>
<td></td>
<td></td>
<td></td>
<td>✓ Increased risk of malformations</td>
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<tr>
<td>• Marijuana - Pot, Gange, Weed, Grass, 420, Boom, Aunt Mary, Blunts, Chronic, Dope, Hash, Joint, Mary Jane, Reefer, Skunk, and Smoke</td>
<td></td>
<td></td>
<td></td>
<td>✓ Increased risk of cardiac malformations</td>
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<tr>
<td>• Legal Medical Marijuana – Marinol, Cesamet, and Sativex</td>
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<td></td>
<td>✓ Increased risk of premature birth</td>
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<tr>
<td>Classification and Examples</td>
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<td>✓ Distorted perception especially of depth and time ✓ Impaired coordination ✓ Difficulty with thinking, problem solving, learning, and memory ✓ Can lead to addiction and withdrawal ✓ Increased potential (with long term use) for mental illness, including psychosis and schizophrenia</td>
<td>✓ Increased risk for placental abruption ✓ Increased risk of fetal distress ✓ Increased risk of intrauterine fetal death (cocaine) ✓ Increased risk for miscarriage</td>
<td>tremors, and sleep disturbances ✓ Increased risk of Attention Deficit Hyperactivity Disorder ✓ Potential for problems with learning memory, perceptual problems, and academic underachievement</td>
<td>L5 Risk of breastfeeding usually outweighs benefit</td>
</tr>
</tbody>
</table>

**Cocaine**

*Street Names: Coke, Snow, C, Flake, Blow, and Crack*

Information not found
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Hallucinogens</td>
<td></td>
<td>✓ Increased potential for respiratory arrest and subsequent death ✓ Sudden death ✓ Headache, seizures, and coma ✓ Irritability, restlessness, insomnia, anxiety, panic, and paranoia</td>
<td>✓ Increased risk of intrauterine growth restriction ✓ Potential for cerebral infarction (stroke) ✓ Increased risk for premature birth</td>
<td>and autonomic regulation, and poor alertness and orientation ✓ In childhood there is potential for subtle learning, disabilities, alteration in language development, alteration in visual-motor ability, attention, and working memory</td>
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</tbody>
</table>

** Hallucinogens

Drug and Street Names

Legal, but non-therapeutic use

- Corticidin (Chlorpheniramine maleate) - Triple C’s, Skittles, Candy, Candy Coated Chaos, Red Devils, ccc, Robo, Robots, Robo dots, Fry, and Whitties
- Dextromethorphan - DXM, CCC, Triple C, Skittles, Robo, Poor Man’s PCP

Information not found

- Dissociative anesthetic with impaired motor function
- Agitated, difficult to control behavior, profuse sweating (Corticidin)
- Causes sedation, immobility, and amnesia
- Distorted perception of reality and hallucinations
- Increased heart rate and blood pressure; liver damage; and

- Increased risk of fetal demise
- Possible cardiac and skeletal abnormalities (Ecstasy)

- Potential for neurodevelopmental damage (Ketamine, GHB, and PCP)
- Craniofacial malformations similar to Fetal Alcohol Syndrome
- Increased risk of Attention Deficit Hyperactivity Disorder and/or developmental delays with language disorders

L5
<table>
<thead>
<tr>
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<th>Dr. Hale’s Lactation Category**</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ketamine (non-hospital use) - K, Special K, Kit Kat, Cat, Valium, Purple Jet, and Vitamin K</td>
<td></td>
<td>central nervous system, cardiovascular system and anticholinergic toxicity (DXM)</td>
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<td></td>
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<td>✓ Can cause death when used in combination with alcohol, or with antidepressants (DXM)</td>
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<td></td>
<td></td>
<td>✓ Potentially fatal respiratory distress</td>
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<tr>
<td><strong>Hallucinogens – cont.</strong> Drug and Street Names</td>
<td></td>
<td>✓ Increased body temperature and profuse sweating (LSD)</td>
<td></td>
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<tr>
<td>Illegal</td>
<td>Information not found</td>
<td>✓ Acts as a hallucinogen, stimulant, depressant, and anesthetic at the same time (PCP)</td>
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<tr>
<td>• GHB (Gamma Hydroxybutyrate)</td>
<td></td>
<td>✓ Chronic use can lead to physical dependence and withdrawal (PCP)</td>
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<tr>
<td>• LSD - Acid, Batty Acid, Blotter, Window Pane, Microdots, Loony Toons, Sunshine, and Zen</td>
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<tr>
<td>• PCP (Phencyclidine) - Angel Dust, Embalming Fluid, Killer Weed, Rocket Fuel, Super Grass, Boat, Dipper, Wet Sticks with</td>
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<tr>
<td>Classification And Examples</td>
<td>FDA Pregnancy Category*</td>
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<tr>
<td>Embalming Fluids, and Z外</td>
<td>Information not found</td>
<td>✓ Central nervous system depressant ✓ Dissociative anesthetic ✓ Distorted perception of reality ✓ Can cause cardiac arrhythmias, heart failure, and death ✓ Risk of asphyxia and aspiration ✓ Risk of kidney, liver, brain, and nervous system damage ✓ Risk of acute encephalopathy ✓ Increased risk of psychosis, delirium, aggression, and trauma ✓ Increased risk of prematurity and low birth weight (&lt;2500 g) ✓ Craniofacial malformations similar to Fetal Alcohol Syndrome ✓ Increased risk for neuron-developmental delay</td>
<td>✓ Increased risk of miscarriage</td>
<td>✓ Information not found</td>
<td></td>
</tr>
</tbody>
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Inhalants:
Street Names: Sniffing, Snorting, Bagging, Glue Sniffing, Glading, Hippie Crack, OZ, Pearls, Wippets, Whiteout, and Huffing
<table>
<thead>
<tr>
<th>Classification and Examples</th>
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</thead>
<tbody>
<tr>
<td>Nicotine</td>
<td>Information not found</td>
<td>✓ Central nervous system stimulant and depressant</td>
<td>✓ Disrupted oxygen supply to the fetus</td>
<td>✓ Increased risk of neonatal loss</td>
<td>L2 (Commercial products)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓ Increases blood pressure, respiration, and heart rate</td>
<td>✓ Increased risk of intrauterine growth restriction</td>
<td>✓ Increased risk of low birth weight (&lt;2500 g)</td>
<td>Benefit of breastfeeding usually outweighs risk</td>
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<tr>
<td></td>
<td></td>
<td>✓ Can cause hyperglycemia due to effect on pancreas</td>
<td>✓ Increased risk of premature birth</td>
<td>✓ Increased risk of irritability and hypertension</td>
<td>Use while breastfeeding may cause decreased milk production</td>
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<td></td>
<td></td>
<td>✓ Increased risk of placenta previa, placental abruption, and premature rupture of membranes</td>
<td>Increased risk of fetal loss</td>
<td>Increased risk of sudden infant death syndrome</td>
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<td>✓ May experience withdrawal with abrupt cessation: nausea, salivation, abdominal pain, sweating, headache, and dizziness</td>
<td>Increased risk of oral facial clefts</td>
<td>Increased risk of Attention Deficit Hyperactivity Disorder</td>
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<td>Increased risk (20%) of morbidity/ mortality due to infections and asthma</td>
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<td></td>
<td>Potential for abnormalities in language development, learning, and memory</td>
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<td></td>
<td></td>
<td>In childhood: potential for increased risk of delinquency, criminal behavior, and substance abuse later in life</td>
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<td></td>
<td></td>
<td>Second hand smoke:</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>✓ Increased risk of sudden infant death syndrome</td>
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<td></td>
<td>✓ Increased risk of behavior problems</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>✓ Increased incidence of bronchitis, pneumonia,</td>
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<td>Classification and Examples</td>
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<tr>
<td>Opiates: Generic and Trade Names</td>
<td>B/C</td>
<td>✓ Overdose is a medical emergency for mother and fetus</td>
<td>✓ Fetal distress</td>
<td>Low birth weight (&lt;2500 g)</td>
<td>L2/L3 Risk of breastfeeding usually outweighs benefit</td>
</tr>
<tr>
<td><strong>Legal</strong> Many of these products are combined with Aspirin, Caffeine, NSAIDs, and/or Tylenol</td>
<td></td>
<td>✓ Withdrawal can cause physical symptoms including flu-like symptoms, nausea, vomiting, diarrhea, sweating, myalgias, chills, rhinorrhea, and runny eyes</td>
<td>✓ Increased risk of fetal demise</td>
<td>✓ Risk of withdrawal symptoms (Neonatal Abstinence Syndrome) including sweating, irritability, vomiting, watery stools, high-pitched crying, tremors, seizures, abnormal muscle tone, poor weight gain, vasomotor, and respiratory effects</td>
<td></td>
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<tr>
<td>• Alfentanil HCL - Alfenta and Alfentanil</td>
<td></td>
<td>✓ Withdrawal can cause psychological symptoms such as anxiety, drug cravings, dysphoria, abdominal cramping, and uterine irritability</td>
<td>✓ Increased risk of intrauterine growth restriction</td>
<td>✓ Increased risk of sudden infant death syndrome</td>
<td></td>
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<tr>
<td>• Codeine</td>
<td></td>
<td>✓ Uterine irritability can lead to increased risk of miscarriage, preterm labor, fetal hypoxia, and fetal death</td>
<td>✓ Abrupt withdrawal of opioids can result in preterm labor, fetal distress or fetal demise</td>
<td>✓ Decreased behavioral, perceptual, and organizational abilities</td>
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<tr>
<td>• Dihydrocodeine - Synalogos</td>
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<tr>
<td>• Fentanyl - Duragesic and Sublimaze</td>
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<tr>
<td>• Hydrocodone Bitartrate - Avexia, Lorcet, Lortab, Norco, Reprexain, Vicodin, Vicoprofen, and Zydone</td>
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<td>• Hydromorphone HCL - Dilaudid</td>
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<tr>
<td>• Meperidine - Demerol</td>
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<tr>
<td>• Morphine Sulfate - Astramorph, Avinza, Duramorph, Insumorph, Kadian, MS Contin,</td>
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Otitis media, asthma, and allergies
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<tr>
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<tbody>
<tr>
<td><strong>Opiates – cont.</strong></td>
<td></td>
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<tr>
<td>Generic and Trade Names</td>
<td></td>
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<tr>
<td>• Oxymorphone -</td>
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<td>Nomorphan and Opana</td>
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<td>• Remifentanil HCL -</td>
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<tr>
<td>Ulitiva</td>
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<tr>
<td>• Sufentanil - Sufenta</td>
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<tr>
<td><strong>Illegal Drug and Street Names</strong></td>
<td>Information not found</td>
<td>✓ Heroin can cause a decrease or absence of papillary response to light, a rush of pleasurable feelings, cessation of physical pain, lethargy, drowsiness, slurred speech, shallow breathing, sweating, vomiting, a drop in body temperature, sleepiness, and loss of appetite</td>
<td>✓ Increased risk of contracting HIV, Hepatitis C, and other infectious diseases</td>
<td></td>
<td>Information not found</td>
</tr>
<tr>
<td>• Heroin - Smack, H. Tar,</td>
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<td>Junk, Brown Sugar,</td>
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<td>Skag, Mud, Dragon, Dope,</td>
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<td>White China, White Nurse,</td>
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<td>White Lady, White Horse,</td>
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<td>White Girl, White Boy,</td>
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<td>Stuff, Black, Black Tar,</td>
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<td>Black Pearl, Black Stuff,</td>
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<tr>
<td>Black Eagle, Brown, Brown Crystal, Brown Tape, Brown</td>
<td>Information not found</td>
<td>✓ Heroin can cause a decrease or absence of papillary response to light, a rush of pleasurable feelings, cessation of physical pain, lethargy, drowsiness, slurred speech, shallow breathing, sweating, vomiting, a drop in body temperature, sleepiness, and loss of appetite</td>
<td>✓ Increased risk of contracting HIV, Hepatitis C, and other infectious diseases</td>
<td></td>
<td>Information not found</td>
</tr>
<tr>
<td>Classification And Examples</td>
<td>FDA Pregnancy Category*</td>
<td>Potential Maternal Effects</td>
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<td>Dr. Hale’s Lactation Category**</td>
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<tr>
<td>Rhine, Mexican Mud, Mexican, Horse, Snow, Snowball, Scat, Sack, Skunk, Number 3, Number 4, and Number 8</td>
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<tr>
<td><strong>Opiates - cont.</strong> Generic and Trade Names • Opium - Big O, OP, Hop, Midnight Oil, Tar Dope, Black Staff, Block, Pappy, Black Block, and Afga</td>
<td></td>
<td>✓ Opium can cause pinpoint pupils, no response of pupils to light, a rush of pleasurable feelings, lethargy, drowsiness, slurred speech, shallow breathing, sweating, vomiting, a drop in body temperature, sleepiness, loss of appetite, lower heart rate and blood pressure, and decreased sexual drive ✓ Long-term use can cause physical and psychological dependence, addiction, physical tolerance, mood swings, severe constipation,</td>
<td></td>
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<tr>
<td>Classification And Examples</td>
<td>FDA Pregnancy Category*</td>
<td>Potential Maternal Effects</td>
<td>Potential Fetal Effects</td>
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<tr>
<td>Opiates</td>
<td>C</td>
<td>menstrual irregularities, lung damage, skin infections, seizures, unconsciousness, and coma</td>
<td>Information not found</td>
<td>✓ Methadone may cause increased risk of withdrawal symptoms (Neonatal abstinence syndrome – NAS) that may be more severe than other legal and illegal opiates with symptoms of sweating, irritability, vomiting, watery stools, high-pitched crying, abnormal muscle tone, poor weight gain, vasomotor, and respiratory effects</td>
<td>✓ Methadone use during breastfeeding is compatible and may have the potential benefit of reducing the symptoms associated with NAS. Suboxone and Subutex – L2/L3</td>
</tr>
</tbody>
</table>

**Generic and Trade Names**

- **Synthetic**
  - Buprenorphine - Buprenex, Subutex, and Suboxone (combination of buprenorphine and naloxone)
  - Methadone HCL - Dolophine and Methadose
  - Propoxyphene - Napsylate - Darvocet and Darvon

**Notes:**

- Methadone may cause increased risk of withdrawal symptoms (Neonatal abstinence syndrome – NAS) that may be more severe than other legal and illegal opiates with symptoms of sweating, irritability, vomiting, watery stools, high-pitched crying, abnormal muscle tone, poor weight gain, vasomotor, and respiratory effects.
- Methadone use during breastfeeding is compatible and may have the potential benefit of reducing the symptoms associated with NAS.

- Suboxone and Subutex – L2/L3
*Federal Drug Administration’s Pregnancy Risk Category*

**Category A:**
Controlled studies in women fail to demonstrate a risk to the fetus in the first trimester (and there is no evidence of a risk in later trimesters) and the possibility of fetal harm appears remote.

**Category B:**
Animal-reproduction studies have failed to demonstrate a fetal risk, and there are no adequate and well controlled studies in pregnant women.

**Category C:**
Either studies in animals have revealed adverse effects on the fetus (teratogenic or embryocidal, or other) and there are no controlled studies in women, or studies in women and animals are not available. Drugs should be given only if the potential benefit justifies the potential risk to the fetus.

**Category D:**
There is positive evidence of human fetal risk, but the benefits from use in pregnancy may be acceptable despite the risk (e.g., if the drug is needed in a life-threatening situation or for a serious disease for which safer drugs cannot be used or are ineffective).

**Category X:**
Studies in animals or human beings have demonstrated fetal abnormalities, and/or there is evidence of fetal risk based on human experience, and the risk of the use of the drug in pregnant women clearly outweighs any possible benefit. The drug is contraindicated in women who are or may become pregnant.

**Category NR:**
Not rated

**Dr. Hale’s Lactation Risk Category**

**L1 Safest:**
Drug which has been taken by a large number of breastfeeding mothers without any observed increase in adverse effects in the infant. Controlled studies in breastfeeding women fail to demonstrate a risk to the infant and the possibility of harm to the breastfeeding infant is remote, or the product is not orally bioavailable in an infant.

**L2 Safer:**
Drug which has been studied in a limited number of breastfeeding women without an increase in adverse effects in the infant, and/or the evidence of a demonstrated risk which is likely to follow use of this medication in a breastfeeding woman is remote.

**L3 Moderately Safe:**
There are no controlled studies in breastfeeding women, however, the risk of untoward effects to a breastfed infant is possible, or controlled studies show only minimal non-threatening adverse effects. Drugs should be given only if the potential benefit justifies the potential risk to the infant. (New medications that have absolutely no published data are automatically categorized in this category, regardless of how safe they may be.)

L4 Possibly Hazardous:
There is positive evidence of risk to a breastfed infant or to breast milk production, but the benefits from the use in the breastfeeding mother may be acceptable despite the risk to the infant (e.g., if the drug is needed in a life-threatening situation or for a serious disease for which safer drugs cannot be used or are ineffective).

L5 Contraindicated:
Studies in breastfeeding mothers have demonstrated that there is significant and documented risk to the infant based on human experience, or it is a medication that has a high risk of causing significant damage to an infant. The risk of using the drug in breastfeeding women clearly outweighs any possible benefit from breastfeeding. The drug is contraindicated in women who are breastfeeding an infant.
Documentation of Screening and Brief Intervention

It is important to document the screening tool used in the patient chart as well as any positive responses. Also document the brief intervention done for any positive responses – both for the purpose of good documentation and care, and to support billing.

Documentation Examples:

• Patient screened using 4P’s Plus tool. No positive responses.
• Patient screened using 5P’s tool. Only positive result was tobacco use. Counseled to stop tobacco use and gave list of places where she can get assistance in quitting smoking.
• Patient screened using 5P’s tool. Positive for depressive symptoms. On further questioning, the patient has a long standing history of depression, but stopped depression medications prior to trying to get pregnant. She was referred for additional psychiatric assessment and counseled about the benefits and risks of antidepressants during pregnancy.

Referring a Patient for Specialized Treatment

Referrals to specialized treatment are recommended to patients experiencing moderate or severe substance use or mental health problems that cannot be effectively addressed with brief intervention. Discuss the benefits of treatment and offer to provide the patient with a referral to a local addiction recovery treatment center if appropriate. A map of contacts for the Office of Behavioral Health – Local Governing Entities (LGEs) in each region is enclosed for reference. If possible, make the appointment while the patient is in the office. Maintain a current list of local and statewide resources. See table of statewide resources and national hotlines.

Helpful tips:

• Discuss the possible strategies; for example, individual counseling, 12-step programs, and other treatment programs. Studies have shown that people given choices are more successful in treatment.
• Utilize a peer support specialist, an advocate or special outreach services if available. Refer to Care Management Section, Peer Support Specialist Services.
• Tailor resources according to client needs and health insurance coverage. Many managed care companies offer care coordination services. More frequent prenatal care visits might be considered. Refer to Care Management Section.
• Maintain communication with the addiction recovery treatment provider to monitor progress.
• Establish goals with the patient and her significant others. See the section on Harm Reduction.
• For tobacco users, referrals can be made to the Louisiana Tobacco Quitline. The Louisiana Tobacco Quitline, 1-800-QUIT-NOW, is a 24 hour, confidential, free tobacco cessation helpline that links people who want to quit using tobacco with trained tobacco cessation specialists who create an individualized plan to quit. This free service is available in English, Spanish and 150 other languages to people calling from anywhere in Louisiana. TTY and TDD accommodations for hearing impaired and deaf individuals are also available at 1-866-228-4327.
If the patient is unwilling to make the commitment to seek specialized treatment services, ask if she would like some information to take with her to review. Schedule the next prenatal visits, continue to maintain interest in her progress and support her efforts in seeking appropriate care and services. Monitor and follow up on any co-existing psychiatric conditions.

**Coordinated Care to Promote Addiction Recovery**

Historically, drug and alcohol addiction has been addressed through intense professional services during acute episodes. While effective in significantly reducing substance use, relapse rates are generally high. This is not surprising as science suggests that addiction is a chronic condition for many individuals. One of the hallmarks of chronic conditions is that they have no cure. However, remission can be attained and the symptoms arrested. Recovery from addiction is achievable. Based on a science-based conceptualization of addiction, the Institute of Medicine and leading addiction researchers have called for a shift in the treatment of substance use disorders from the prevalent acute care model to a continuum of care model akin to that used in other chronic conditions.

The behavioral health field is moving toward recovery-oriented approaches to treatment and care for those with mental and substance use disorders. This approach is based on a holistic definition of recovery as a self-directed process of change through which individuals improve their health and wellbeing and strive to achieve their full potential. Recovery-oriented approaches involve a multi-system, person-centered continuum of care where a comprehensive menu of coordinated services and supports is tailored to individuals’ recovery stage, needs and chosen recovery pathway; the goal is to promote abstinence and a better quality of life.

Peer Support Specialists (PSS), also known as Recovery Coaches, are individuals in recovery from substance use or other behavioral health conditions and have the experiential knowledge necessary to assist those receiving substance use treatment. Services rendered by PSS or Recovery Coaches done in conjunction with behavioral health service providers and are delivered either one-on-one or in group settings. Studies have shown that participants receiving peer interventions showed improvements in substance use, a range of recovery outcomes, or both. These findings suggest that peer interventions positively impact the lives of individuals with substance use disorders.

More information about peer support can be found at [http://dhh.louisiana.gov/index.cfm/subhome/10](http://dhh.louisiana.gov/index.cfm/subhome/10).
Substance Use Disorders (SUDs) Levels of Care

The American Society of Addiction Medicine (ASAM) has set standards for patient placement into the various levels of care. In order to determine what kind of treatment is best, an alcohol and drug professional counselor performs a complete evaluation using these standards to make the appropriate recommendation and referral. A brief description of the most common levels of care are as follows, starting from less intensive to most intensive treatment for any substance use disorder. Medications used in the treatment of specific substance use disorders may be included at any level of care.

**Level 1 – Outpatient Treatment:**
- Usually includes individual, group and family counseling and education.
- Usually includes one or two sessions weekly (no more than nine hours of services per week).
- Sometimes includes medical and/or psychiatric assessments, referrals and/or interventions.
- Usually includes some case management.

**Level 2 – Intensive Outpatient Treatment:**
- Usually includes individual, group, and family counseling and education.
- Defined as nine or more hours of services weekly.
- Often includes psychiatric assessment and interventions.
- Usually includes case management including referrals to other services such as medical care.
- May include withdrawal management with a medication taper.

**Level 3.1 – Low Intensity Residential Rehabilitation (Halfway House):**
- Defined as at least 5 hours of services weekly
- Provides a residential setting with 24 hour non-medical recovery environment.
- May provide some case management.

**Level 3.3 – Clinically Managed Population – Specific High-Intensity Residential**
- Provides a residential setting with 24 hour counseling support.
- Provides a structured therapeutic community that includes individual, group, and family counseling.
- Includes psychiatric interventions and referrals to other services such as medical care.

**Level 3.7 – Medically Monitored Intensive Inpatient Treatment:**
- Provides a residential setting with 24 hour medically monitored care.
- Includes individual, group, and family counseling and education in a highly structured setting.
- Includes psychiatric interventions and referrals to ancillary services.
- May include medically monitored withdrawal management and detoxification.
Medication-Assisted Treatment of Substance Use Disorders

In addition to methadone, buprenorphine has been gaining recognition as a treatment for opioid addiction during pregnancy. Buprenorphine is a synthetic opioid and partial mu-opioid agonist with a very high affinity for the mu-opioid receptor. It can therefore displace circulating opiates. A ceiling effect of buprenorphine benefit is believed to exist; dosing beyond 24 to 32 mg daily may not have any additional benefits. The autonomic withdrawal associated with buprenorphine is said to be less significant than with other opiates. Buprenorphine demonstrates favorable qualities similar to methadone, such as decreasing drug cravings with daily dosing, with the additional benefits of being prescribed by specifically certified physicians as opposed to federally funded clinics. This benefits patient autonomy and opiate maintenance.

In pregnancy, buprenorphine alone is favored over buprenorphine/naloxone because of lack of data regarding the combination product, and concerns that naloxone may produce maternal and subsequently fetal hormonal changes. The naloxone component was added to limit the abuse potential of buprenorphine, because when the combination is taken sublingually naloxone is not bioavailable and does not accumulate to clinically significant concentrations. If buprenorphine/naloxone is injected or snorted, however, it will precipitate withdrawal in opioid-dependent individuals. We routinely use the combination in our clinics, and data are forthcoming regarding the relative safety of its use. Nevertheless, until more research is available use of buprenorphine alone remains standard for pregnant patients despite its high abuse potential.

Numerous comparisons of methadone and buprenorphine have been performed to assess their efficacy in the treatment of opioid dependence in pregnancy. Because withdrawal symptoms associated with buprenorphine are purportedly less intense than with methadone, researchers sought to determine the impact of methadone versus buprenorphine on NAS. The 2010 MOTHER (Maternal Opioid Treatment: Human Experimental Research) study found that buprenorphine was associated with significantly lower doses of morphine for treatment of NAS, shorter duration of treatment, and shorter hospital stay than methadone. This report has had a significant impact on the treatment of opiate dependence in pregnancy, and use of buprenorphine for the treatment of opiate maintenance in pregnancy is increasing.


Alcohol

Withdrawal management/detoxification usually managed with thiamine replacement and a pharmacologic taper. Benzodiazepine is the medication taper that is usually used during pregnancy. Adjuvant counseling should also be provided. In the postpartum period three other medications are available as part of the treatment of alcohol use disorder. They are disulfirama (Antabuse), acamprosate (Campral), and injectable or oral naltrexone (Vivitrol or Revia).
### Benzodiazepine and Other Sedatives
Currently, no effective maintenance medications exist to help patients stabilize and manage sedative use disorder, so withdrawal management/detoxification is the main treatment option. Because of the risk of benzodiazepine withdrawal seizures, withdrawal management/detoxification is most safely conducted in a medically monitored setting. Benzodiazepine detoxification is a difficult process with a very high failure rate. Many patients have prolonged withdrawal symptoms, including severe anxiety. Because of this, detoxification should be followed by long term therapy, including substance use disorder treatment and mental health care.

### Cannabis, Cocaine, Club Drugs, Hallucinogens and Stimulants
Unfortunately, no specific medications are available for the treatment of these disorders. Management of withdrawal symptoms coupled with counseling is the standard of care.

### Opioids
Opioid detoxification is controversial in pregnancy due to concern about potentially harmful effects on the fetus. Because there are significant changes to the central nervous system that occur with chronic opioid use, many patients have prolonged withdrawal symptoms. Opioid detoxification treatment also has a very high failure rate. For these reasons, detoxification in pregnancy should be followed by long term therapy, including substance use disorder treatment and mental health care.

Medication Assisted Treatment has been associated with the most successful outcomes, often through prolonged treatment over years or a lifetime. Methadone and buprenorphine are the two maintenance medications that are currently used in the United States in the treatment of opioid disorder during pregnancy. Both methadone and buprenorphine allow for stabilization of dysfunctional brain physiology and disordered neurocircuitry. The two medications are different in their pharmacology and in their delivery systems.

The goal of treatment with either methadone or buprenorphine during pregnancy:

- Elimination of opioid seeking behaviors
- Cessation of illicit opioid use
- Stabilization of intrauterine environment
- Stabilization of patient’s environment
- Increased compliance with prenatal care
- Enhanced pregnancy outcomes
- Ability to live a self-directed life and to try to reach one’s potential

### Methadone Maintenance Therapy
Methadone maintenance therapy has been used in the treatment of opioid addiction since the 1960s. It has been the “gold standard” for treating opioid addiction in pregnant women since the 1970s. Methadone is a synthetic, full opioid agonist that acts on the opioid receptor system in a manner similar to morphine, but the half-life is longer at 24 to 36 hours.
When methadone is used as part of the treatment for opioid addiction, it must be done through a certified opioid treatment program (OTP). Because of strict federal regulations, methadone for maintenance therapy cannot be initiated during a hospital stay unless done in cooperation with a certified opioid treatment program which can continue treatment after hospital discharge. Physicians are prohibited from prescribing methadone for maintenance outside of a certified methadone program.

All Opioid treatment programs (OTPs) are required to provide counseling and comprehensive urine toxicology testing in addition to medication. Patients are required to report every day to receive their oral dose of medication until they are stable enough to be given some doses to self-administer. Progress in treatment is measured by regular attendance at the clinic (not missing days/doses), regular attendance at counseling sessions, and cessation of illicit drug use (negative urine toxicology reports).

Although methadone treats opioid withdrawal symptoms, prevents future withdrawal symptoms, and reduces cravings for opioids, it has no direct effect on other substances. As with all opioids, patients develop physical dependence on methadone so abrupt cessation or large decreases in a maintenance dose will cause withdrawal.

**Methadone Dosing During Pregnancy**

The average daily dose of methadone ranges from 30 – 140 mg to eliminate opioid withdrawal symptoms and reduce cravings for opioids. Dosing is individualized to the patient’s needs. There are, however, no established guidelines for methadone dosing during pregnancy.

In several studies, the severity of Neonatal Abstinence Syndrome (NAS) has not been found to be dose dependent when the maintenance dose is 30 – 140 mg range. About 60% of infants born to mothers maintained on methadone will require medication for NAS.

Generally, methadone doses do not have to be increased during pregnancy unless there is evidence of ongoing or new withdrawal symptoms. Decreasing or tapering the dose of an established methadone maintenance patient is not recommended during pregnancy, unless the patient appears overly sedated. Despite this, there may be instances where the benefits of tapering outweigh the risks. In these cases, in a closely monitored setting, the dose of methadone can be slowly reduced as tolerated by the patient.

**Buprenorphine Maintenance Therapy**

Buprenorphine has been approved for treatment of opioid addiction since 2002. It is a semi-synthetic, partial opioid agonist. The pharmacologic half-life for buprenorphine is 24 to 60 hours so there is a long-duration of action. It is usually given on a daily basis, but can be given several times per week, due to this property. It is given sublingually and reaches plasma concentrations within 90 minutes.

Often, buprenorphine alone (trade name Subutex), rather than the combination of buprenorphine and naloxone (Suboxone), is used to treat opioid addiction during pregnancy. According to the Drug Addiction Treatment Act of 2000 (DATA 2000), specially qualified physicians may prescribe buprenorphine for the treatment of opioid addiction in office-based settings. Counseling is strongly encouraged with buprenorphine therapy. For more information on DATA 2000 and buprenorphine, please visit the Substance Abuse and Mental Health Services Administration website at http://buprenorphine.samhsa.gov/index.html.
At lower doses, buprenorphine acts pharmacologically in a similar way to morphine and methadone. However, as the dosage increases, the effect of buprenorphine reaches a maximum level and does not increase further. This is a “ceiling effect” and is due to the partial agonist properties of buprenorphine. The ceiling effect applies to all effects of the drug, including analgesia, euphoria, and respiratory depression. As higher doses are reached, the drug can act like an antagonist by occupying the receptors, but not fully activating them. This property of buprenorphine results in a safer clinical profile. Buprenorphine may be associated with a lower level of physical dependence than methadone and other opioids. Also, the withdrawal syndrome associated with buprenorphine discontinuation or taper may be milder in intensity.

The National Institute of Drug Abuse (NIDA) multi-centered trial of 2002 supported buprenorphine’s effectiveness and safety in short term withdrawal management (at doses of 8-12 mg/day) and in long term maintenance (at doses of 4-32 mg/day). Other research on buprenorphine in pregnancy has shown that the effects on infants were similar to in utero methadone exposure. The 2012 multicenter study, Maternal Opioid Treatment: Human Experimental Research (MOTHER), compared methadone to buprenorphine maintenance in pregnancy. It demonstrated that buprenorphine was at least as safe as methadone and may have some advantages. While this one study showed potential advantages of buprenorphine maintenance in pregnancy regarding NAS treatment for exposed infants, additional investigation is ongoing.

Pain management of pregnant women on buprenorphine maintenance therapy is challenging. Opiate therapy for severe pain may be ineffective in the presence of buprenorphine. Since non-steroidal anti-inflammatory drugs (NSAIDS) are contraindicated in pregnancy, buprenorphine may need to be switched to methadone or discontinued during time of acute pain management. Coordination with the buprenorphine provider may be necessary to provide adequate pain relief while treating the opioid addiction. Postpartum pain management is not as difficult since ketorolac (Toradol) and other NSAIDs can be used together with narcotic drugs, including buprenorphine, to relieve post-operative pain.

**Hospital Based Treatment of Opioid Withdrawal Symptoms**

Protocols are in place for those pregnant women who are not currently enrolled in medication assisted therapy when they present to hospitals with withdrawal symptoms.

**To achieve and maintain recovery, all patients with substance use disorder should participate in structured substance use disorder treatment or long term supportive therapy.**
Medication Assisted Treatment for Opioid Dependence among Pregnant Women
(Adapted from ACOG COMMITTEE OPINION on Opioid abuse, Dependence and Addiction in Pregnancy Number 524 May 2012, reaffirmed 2014)

- Opioid use in pregnancy is associated with risk of adverse outcomes.
- Abrupt discontinuation of opioids can result in preterm labor, fetal distress or fetal demise.
- The current standard of care for pregnant women with opioid dependence is referral for medication assisted treatment with methadone, but emerging evidence suggests that buprenorphine (Subutex/Suboxone) also should be considered.
- Medically supervised tapered doses or detox during pregnancy often result in relapse to former use. If methadone or buprenorphine is unavailable or women refuse both, medically supervised withdrawal is recommended to be done ideally in the second trimester.
- Stabilization with medication assisted treatment is compatible with breastfeeding. Neonatal Abstinence Syndrome is an expected and treatable condition following exposure to opioids, methadone or buprenorphine (Subutex/Suboxone).

Background Rationale:

- The rationale for medication assisted treatment during pregnancy is to prevent complications of illicit drug use and narcotic withdrawal, encourage prenatal care and drug treatment, reduce criminal activity, and avoid risks to the patient and fetus of associating with drug culture.
- Comprehensive medication assisted treatment that includes prenatal care reduces the risk of obstetrical complications.
- Methadone maintenance or buprenorphine treatment should be part of a comprehensive package of prenatal care, chemical dependency counseling, family therapy, nutritional education and other psychosocial services as indicated for the pregnant woman with opioid dependence.
- Perinatal methadone initiation is done in a licensed outpatient methadone program.
- If the patient requires hospitalization for initiation, arrangement must be made before discharge for next day admission to an outpatient program.
- METHADONE cannot be prescribed by an obstetrician through their office.

Buprenorphine can be prescribed only by certified physicians who have undergone specialized credentialing.
Advantages of buprenorphine over methadone include a lower risk of overdose, fewer drug interactions, the ability to be treated outpatient without daily visits to a licensed outpatient clinic and evidence of less severe neonatal abstinence syndrome.
The single agent buprenorphine (Subutex) without naloxone (Suboxone is buprenorphine with naloxone) is recommended for pregnancy.

IT IS IMPORTANT that frequent communication be maintained between the patient’s obstetric care provider and addiction care provider to coordinate care. Patient consent to release/obtain information can be completed upon referral to specialized care.
### Methadone Treatment Programs (2016)

<table>
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<tr>
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Special Cautions in Methadone and Buprenorphine Treatment

- Pregnant women on methadone maintenance tend to have more nausea, vomiting and constipation than the typical pregnant woman. Generally these symptoms respond to the interventions employed in typical cases. However, use caution in prescribing promethazine (Phenergan, Phenadoz, or Promethegan) for these symptoms because its psychoactive properties may be abused to “enhance” the effects of methadone.

- When benzodiazepines are combined with opioids, including buprenorphine, patients may experience reduced oxygen saturation and respiratory depression along with an increased risk of mortality. Whenever possible, benzodiazepines should be avoided in patients who are regularly maintained on opioids.

Pain Control

Patients who have a tolerance to opiate drugs may need higher than typical doses of pain medication to address legitimate sources of pain. Carefully titrate all pain medications.

- Methadone treatment is not a substitute for pain management. Methadone is a poor choice to treat pain as the duration of pain relief is very short while the respiratory inhibition from methadone is of long duration.

- Treatment of pain with opioid medications should be limited to the minimum time period necessary, taking into account the expected clinical course of the particular source of pain. Give no more than a 7 day supply prior to a clinical reassessment.

- Treatment of severe pain during pregnancy for patients on buprenorphine is especially challenging because it blocks access to opioid receptor sites.

- Pain management after delivery is most safely accomplished by non-opioid pain medication or post-operative epidural analgesia, when appropriate.

- Narcotic prescriptions for patients complaining of pain after delivery should be limited to no more than a 3-7 day supply, with no refills given prior to an in-person follow-up visit.

Hospitalizations

Hospital personnel need to be non-judgmental and empathetic, but willing to set firm limits. Common patient issues include:

- Short attention span
- Agitation
- Priorities other than the current pregnancy
- Need to smoke because of tobacco addiction
- Requirements for methadone dose adjustment
- Problems with hyperalgesia and allodynia (increased skin and subcutaneous pain perception due to altered dopamine receptors from chronic opioid use)
Special Considerations in Prenatal Care

There are special considerations in prenatal care including what common co-occurring problems to look for, how often to see women for care, when and how to do tests, how to deal with problems identified, and when to seek consultation and/or emergency intervention.

Care of the substance-using pregnant women should be a multi-disciplinary effort to optimize perinatal outcome. If the substance use is such that referral for treatment is necessary, or the patient already is in on-going substance use treatment, the pregnancy will require closer monitoring because of the increased risk to the mother and her fetus. If this is the case, your care will qualify for billing as a high risk pregnancy.

Of paramount importance is the communication between the obstetric provider and the substance abuse treatment provider. Consent for communication between providers should be obtained at the earliest possible time so that both sets of providers can be aware of the identified problems and care can be coordinated. Communication between providers can allow caregivers to give consistent messages to the patient, facilitate concerns being addressed in a timely fashion, and address questions about treatment. Coordinated care helps everyone involved provide the best possible care for the woman and her unborn baby, improving outcomes for both.

The Importance of Prenatal Care

Early enrollment and regular attendance in prenatal care associated with improved pregnancy outcomes. Assessment of pregnancy progression and close monitoring for maternal and fetal complications is an important part of prenatal care in this high risk population. Prevention and treatment of infections and illnesses, control of existing medical conditions, counseling about diet and healthy habits can lead to healthier pregnant women and infants. The substance abuse treatment provider can be an integral part of this process by strongly encouraging women to access and to continue prenatal care. Consent should be obtained early in the treatment of the pregnant woman allowing communication and collaboration with the obstetric care provider.

Accessing Prenatal Care

In Louisiana, almost all pregnant women are eligible for prenatal and postpartum care either through their own private insurance or through Medical Assistance (LA)/ Louisiana Children’s Health Program. In most cases, the local health department receives pregnant women’s applications for LA/MCHP and is expected to process these applications within 48 hours. Local departments of social services can also process these applications but are not required to follow the 48 hour timeline. Once approved, LA/MCHP will cover prenatal care (up to three months retroactively) as well as delivery costs and the 6 week post-partum visit. This public insurance does not cover elective abortion services.

The completion of a full prenatal assessment will likely require more frequent visits and case coordination due to the complexities of care for the substance using pregnant women. Key components of the care may include:

- Substance use treatment and establishment of care in a substance use treatment program
- Nutritional counseling and WIC referral
- Assessment and counseling for tobacco and alcohol use
- Fetal growth assessment - ultrasound assessment at 28 and 34 to 36 weeks
- Social services
- Management of pain
- Assessment of willingness to participate and be referred for treatment
• Evaluation and treatment of common co-morbid conditions
  - Psychiatric disorders
  - Intimate partner violence
  - Medical problems often undertreated and presenting in poor control
    - Diabetes
    - Hypertension
    - Seizure disorders
    - Asthma
    - Cervical cancer test (Pap test) abnormalities
    - Cardiac disorders, valvular disease, and/or endocarditis from IV drug use

Sexual and Blood Borne Infections
Several infections occur more commonly in substance using women because of their transmission via sexual contact, drug paraphernalia, or blood to blood transmission. Suggested protocols for screening and management of these are included below.

Sexually Transmitted Infections (STIs)
Women with substance use problems may engage in high-risk sexual behaviors which put them at increased risk for STIs. Plan to screen for gonorrhea, chlamydia, and trichomoniasis:

• At the initial prenatal visit
• After any lapse in care
• With complaint of vaginal discharge
• At 36 weeks gestation

Hepatitis B
Obtain hepatitis B surface antigen (HBsAg), hepatitis B surface antibody (HBsAb) and hepatitis B core antibody (HBcAb) tests at the initial prenatal visit. A positive hepatitis B surface antigen means that the person has either an acute or a chronic hepatitis B infection and can pass the virus to others. The hepatitis B surface antibody test is positive when the person has been vaccinated against hepatitis B or has recovered from a hepatitis B infection. A positive hepatitis B core antibody test means the person is either currently infected or was infected in the past. Proceed as follows:

• If hepatitis B surface antigen and/or hepatitis B core antibody are positive, obtain a hepatitis B antigen test. A positive hepatitis Be antigen means that the person has high levels of virus in her blood and can easily spread the virus to others including her infant during delivery. You may also want to obtain a viral load and liver function tests as they will be useful in planning potential interventions.
• If liver function tests are elevated, involve a gastroenterologist or a hepatologist in the patient’s care to determine a treatment plan and timing of treatment.
• Recognize that treatment carries major risks during pregnancy. No antiviral is approved for use in pregnancy and most agree that no treatment should occur before the third trimester because of risks of teratogenicity to the fetus from the available medications. Even treatment during the third trimester is controversial.
• Consider offering hepatitis B vaccination (3 injections spaced over a 6 month period) if the woman is hepatitis B negative for all markers.
• Counsel the mother that hepatitis B surface antigen positive mothers are at substantial risk of infecting their infants during delivery, regardless of delivery method. Those with acute infection (with positive hepatitis Be antigen) will infect their infant 70 – 90% of the time. Those with a chronic infection will infect their infant approximately 5 - 20% of the time during delivery.
• Notify the pediatrician about the mother’s hepatitis status, as infants born to HBsAg positive mothers will need to be treated with both hepatitis B vaccine and hepatitis B immunoglobulin within 12 hours of birth. Infants born to mothers with unknown hepatitis B status may also need similar care since the risk of transmission during delivery is so high from both acute and chronic hepatitis B infected mothers.
• Encourage breastfeeding since hepatitis B infected mothers rarely transmit hepatitis B to their infants via breast milk.

**Hepatitis C**

Evaluate hepatitis C status by obtaining hepatitis C antibody, qualitative test at the initial prenatal visit. Further testing and care should proceed as follows:

• Obtain hepatitis C viral load and liver function tests if initial screen is positive.
• Refer for gastroenterology/hepatology consult in the third trimester or postpartum if the patient has an active hepatitis C infection, an elevated viral load, or abnormal liver function tests to develop a plan for treatment as appropriate. In most cases, treatment will be deferred until after delivery.
• Reassure the pregnant woman that transmission to her infant occurs in only 4% of cases. Strongly urge the woman to get treatment after delivery since current treatment options can provide a cure. If transmission has occurred, the baby will need treatment as well.
• Encourage breastfeeding since hepatitis C infected mothers rarely transmit hepatitis C to their infants via breast milk.

**Human Immunodeficiency Virus (HIV) and AIDS**

Rates of HIV infection are higher among substance using pregnant women compared to other pregnant women. Proceed as follows:

• Screen all women for HIV at the first prenatal visit. Repeat HIV screening in the third trimester because of the high incidence of HIV infection in Louisiana.
• Notify the woman that, unless she declines, HIV screening is part of the routine panel of prenatal tests.
• Document any refusal of HIV testing in the medical record.
• Disclose positive tests in person and make arrangements for case management and follow up with a perinatologist, infectious disease specialist, or immunologist for advice about appropriate treatment during pregnancy.
To reduce the risk of HIV transmission to the infant, the CDC recommends the following:

- Begin medication promptly if the pregnant woman is identified with HIV infection and counsel her about the necessity of taking HIV medication daily to protect her infant.
- Perform a rapid HIV test if the pregnant woman arrives to Labor and Delivery and was not screened in the third trimester or if she continues active substance use.
- Begin treatment in the delivery room if the rapid HIV test is positive in order to reduce the risk of transmission during delivery.
- Obtain a confirmatory blood test, but do not delay treatment pending the results.
- Offer a cesarean section, if possible.
- Schedule delivery by cesarean section at 38 weeks (or earlier, if in labor) if the woman’s HIV RNA levels are greater than 1,000 copies/ml.
- Perform a cesarean section on an HIV positive woman if delivery is imminent and her HIV RNA levels are unknown.
- Always avoid the placement of fetal scalp electrodes and performance of operative vaginal delivery with forceps or a vacuum extractor.
- Avoid artificial rupture of membranes and episiotomy unless obstetric indications clearly outweigh the increased risk of HIV transmission to the infant.

Additional information:

- Check information on the website http://aidsinfo.nih.gov/guidelines.
- Call the National Perinatal HIV Hotline – 1-888-448-8765.

Special Considerations in Postpartum Care

The postpartum period is a particularly vulnerable time for relapse into substance misuse. Women who have been actively engaged in a substance use disorder program may decrease or stop their attendance. Women who have not been involved in formal treatment, but were able to independently curtail their substance misuse during pregnancy to protect the fetus, often return to substance use after the infant is born.

Some of the contributing factors leading to postpartum relapse include hormonal shifts, stress of caring for the newborn, fatigue, adjustment to new family dynamics, and/or the transition to new providers. Being pregnant is a powerful motivator for abstinence to protect the growing fetus. Once the baby is born that particular motivation disappears and many women eventually return to substance use despite their best intentions to remain abstinent. It may be helpful to point out that continued recovery is essential to help the mother provide the infant with consistent, nurturing care that is sensitive to the child’s cues and needs. This is necessary to help the infant develop a sense of trust that his or her needs will be met and fosters optimal growth and development in the infant.

Because of the high risk of relapse, the OB provider should confirm and document ongoing substance use disorder treatment and any mental health treatment upon postpartum discharge from the hospital and at the routine 6-week postpartum visit. The OB provider may consider scheduling an earlier postpartum visit at 4 to 5 weeks postpartum for improved compliance.
If insurance coverage needs to change after the 6-week postpartum visit, the Affordable Care Act requires all new insurance policies to cover mental health and substance use disorder services including behavioral health treatment. Insurance companies are required to provide continuity in care between insurance companies when coverage changes.

Rescreening
Because of the stresses on new mothers and the high incidence of relapse, the OB provider should re-screen all women at their postpartum visit for substance use/misuse. Similarly, this is a key time also to screen for depression and intimate partner violence since risks for both of these problems increase during the postpartum time.

Hepatitis B and C
Women whose prenatal blood tests have indicated a need for treatment should begin this during the postpartum period. Referral to the gastroenterologist or hepatologist should be initiated or confirmed.

Impact of Substance Use on Breastfeeding
Breastfeeding is recommended for almost all women by the American Academy of Pediatrics. Breastfeeding conveys substantial health benefits both for the infant and for the mother. Breast fed babies have fewer infections, decreased rates of obesity later in life, improved attachment with their mothers, lower risks for Sudden Infant Death Syndrome, and lower rates of asthma. Mothers who breast feed their babies have improved bonding with their infants, lower food costs for their babies, more rapid recovery following childbirth, and lower rates of breast and ovarian cancer later in life.

However, these benefits must be balanced against the risks of transmitting substances through breast milk when the mother continues to use drugs (both licit and illicit) or other substances. Of note, the American Academy of Pediatrics Clinical Report on this topic specifically mentions that the risks from drug exposure are higher for premature infants and infants under two months of age but are rare to occur for infants over six months of age. Current and comprehensive information about transfer of specific medications by way of breast milk is available through LactMed https://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm.

In addition to the risks of transfer of drugs via breast milk, one must consider whether breastfeeding while impaired by drug use also increases other risks – such as the transfer of certain infections (such as HIV) or the likelihood of engaging in other behaviors which may be dangerous for the infant. The latter could include co-sleeping with the infant, burning the infant when smoking while breastfeeding, or exposure to secondhand smoke.

Polydrug use is common for substance using pregnant women, including the use of legal substances such as tobacco and alcohol. Illicit drugs are frequently cut with dangerous adulterants that can pose additional threats to the infant. Drug using populations are at higher risk for infections such as human immunodeficiency virus (HIV) and/or hepatitis B or C, as well as poor nutrition. Psychiatric disorders that require pharmacotherapeutic intervention are more prevalent among this population, making decisions about breastfeeding even more complicated as there is limited information available on the relative safety of breastfeeding with many psychotropic medications.
The decision whether to encourage breastfeeding or not must be based on consideration of both the risks of substances transmitted and the fact that infants of substance-using women are at risk for multiple health and developmental difficulties that might be improved substantially with breastfeeding. This position is described in detail in Jansson, Lauren, M. ABM Clinical Protocol #21: Guidelines for Breastfeeding and the Drug-Dependent Woman. The Academy of Breastfeeding Medicine Protocol Committee. 2009 December; 4(4): 225-228.

Overall benefits of breastfeeding:

- Improved infant nutrition
- Decreased risk of infections and allergies in infants and children
- Increased empowerment and self-esteem of the woman
- Lower feeding costs
- Accelerated physical recovery for the woman after delivery
- Increased attachment between the mother and her infant

Risks are reduced when a woman with a history of substance use/abuse:

- Engages in substance use disorder treatment and provides consent for open communication between providers.
- Commits to maintaining abstinence from substance use/abuse.
- Has negative toxicology screens in the third trimester and at delivery (except for substances used to treat addictions and drugs cleared as safe for use when breastfeeding).
- Has been tested for Human Immunodeficiency Virus (HIV) and is negative.
- Has had any additional medications reviewed and determined to be safe or worth the minimal risks.

List of Substances:

Alcohol

- Alcohol is transferred into breast milk by passive diffusion within 30 to 60 minutes of ingestion.
- Maternal serum and breast milk levels are equal but, in heavy drinkers, breast milk concentrations are greater than plasma concentrations.
- Alcohol can alter the infant's milk intake and sleep/wake cycles.
- Infants process alcohol in the body at half the rate of adults until the age of 3.
Advice to patients: Women with a history of a substance use disorder or misuse of illicit substances should avoid all alcohol while breastfeeding. (Note: this advice is different than the published recommendations for women without a history of substance abuse or misuse – see references.)

**Buprenorphine**
Case studies suggest that the amount of buprenorphine in human milk is low and is unlikely to have negative effects on the developing infant.

**Advice to patients:** Women who are maintained on buprenorphine and abstain from other drugs may safely breastfeed their infants.

**Cocaine**
- Studies have found large variability in concentrations in breast milk.
- Cocaine has been found in human milk in high concentrations leading to infant intoxication in some cases.

**Advice to patients:** Women using cocaine should not breastfeed their infants.

**Heroin and other Opioids**
- Codeine, oxycodone and heroin transmitted in breast milk have substantial risks of CNS depression and possibly even infant death.
- Low dose prescribed opioids for pain control in the postpartum period are compatible with breastfeeding since these doses are much lower than doses that are taken by those misusing these drugs.

**Advice to patients:** Women using illicit opioids or misusing licit opioids should not breastfeed their infants.

**Marijuana**
- Breast milk levels of tetrahydrocannabinol (THC) may be higher than maternal serum levels in chronic users.
- THC may cause the short term effects of sedation, weakness, and/or poor feeding in the infant.
- Long term effects are generally unknown but there is one study suggesting that chronic exposure in the first month of life via breast milk may be associated with poorer motor development in children at one year of age than in children not exposed to marijuana.

**Advice to patients:** Current advice is that women using marijuana should not breastfeed, although studies of its effects on infants are very limited at present.

**Methadone**
- Methadone has been the treatment of choice for opioid dependent women in the United States.
- Very low concentrations are found in breast milk.
- No apparent short-term or long-term effects have been found on neurodevelopment of infants from methadone transferred in human milk.
Advice to patients: Women on methadone maintenance and abstaining from other substance use/abuse may breastfeed their infants.

Methamphetamine
- Concentration in breast milk is found to be at 3 to 7.5 times the mother’s plasma levels.
- Methamphetamine can cause irritability and agitation in the infant.
- Infant death has been reported related to breast milk transfer of methamphetamine.
- Exposure to the production of methamphetamine is extremely dangerous due to the toxic chemicals used.

Advice to patients: Women using methamphetamine should not breastfeed their infants.

Nicotine
- Maternal serum and breast milk levels are equal (measuring cotinine).
- Nicotine use has been associated with low milk supply and poor infant weight gain in some cases.
- Smoking carries injury (burn) danger due to dropped cigarettes and/or ashes.
- Passive inhalation (secondhand smoke) of nicotine and tar is more dangerous to infants than adults due to the infant’s increased respiratory rate and rapid absorption via the respiratory route.
- Nicotine patch (21 mg) leads to serum levels equivalent to that of about 17 cigarettes.

Advice to patients: Women who smoke may breastfeed but should take steps to reduce the risks to their infants (decrease smoking and use lowest possible nicotine product, smoke outside and not in the presence of baby, smoke immediately after nursing to provide maximal time for nicotine to be excreted, change clothes after smoking).

The Effects of a Mother Smoking on Her Pregnancy and Her Treatment Options

Smoking is one of the most important modifiable causes of poor pregnancy outcomes in the United States, and is associated with maternal, fetal, and infant morbidity and mortality. Before we talk about the effects of smoking on pregnant women, we have to remember that smoking also is a hindrance to a woman conceiving. Women who smoke have more difficulty becoming pregnant and have a higher risk of never becoming pregnant. Pregnancy appears to motivate women to stop smoking. 46% of women that smoked before pregnancy quit smoking directly before or during pregnancy.

Second-hand and third-hand smoke
Second-hand smoke comes from smoke someone else has exhaled or smoke from their cigarette. Breathing second-hand smoke can be as bad as smoking yourself. Low birth weight babies and preterm birth are associated with second-hand smoke. Symptoms caused by second-hand smoke in children include pneumonia, ear infections, lung damage, and increased asthma and allergy problems. Louisiana Act 838 prohibits smoking in a motor vehicle when children under age 13 are in the vehicle. Doctors recommend women protect their children from second-hand smoke. Opening a window does not protect children from smoke in a car.

Third-hand smoke is a problem, too. It comes from toxic material left behind after the smoke clears that clings to hair, clothes, furniture, drapes, and carpet. Toxins left behind often include lead, arsenic, and carbon monoxide.
The following comes from ACOG’s Committee Opinion 471, “Smoking Cessation During Pregnancy”. Smoking is associated with these pregnancy complications:

- Intrauterine growth restriction
- Placenta previa, abruption
- Decreased maternal thyroid function
- Preterm premature rupture of membranes
- Low birth weight
- Perinatal mortality
- Ectopic pregnancy
- Miscarriage and stillbirth

The nicotine in cigarettes may cause constrictions in the blood vessels of the umbilical cord and uterus, thereby decreasing the amount of oxygen and nutrients available to the fetus. Nicotine also may reduce the amount of blood in the fetal cardiovascular system. Smoking is the cause of:

- 5–8% of preterm deliveries
- 13–19% of term deliveries of infants with low birth weight
- 23–34% cases of sudden infant death syndrome (SIDS)
- 5–7% of preterm-related infant deaths

It is best to not smoke at all during pregnancy or be around other people that smoke. For women that smoke early in pregnancy, quitting before 15 weeks gestation yields the greatest benefits for mother and baby. Successful smoking cessation before the third trimester can eliminate much of the reduction in birth weight caused by maternal smoking.

### Tobacco users want to quit

Seventy percent of tobacco users report wanting to quit. 44% have made at least one quit attempt in the past year. Users say expert advice is a vital part of their decision to quit. ACOG has numerous resources to help obstetricians help their patients. Another resource was published by the AHRQ in February 2014. It is “Smoking Cessation Interventions in Pregnancy and Postpartum.” The Agency for Healthcare Research and Quality looked through several thousand titles and abstracts and 417 publications to identify 56 randomized control trials to determine the best way of intervening in pregnancy and postpartum to obtain smoking cessation. Multiple interventions to promote smoking cessation exist. They include advice and counseling, self-help materials, nicotine replacement therapy, the antidepressant Zyban and pharmacologic cessation aids such as varenicline (Chantix). Multicomponent interventions consisting of counseling, education materials, peer support, and voucher incentives in some studies showed positive effects and in other studies ineffective. Across interventions, data are sparse to evaluate sustained cessation among pregnant and postpartum women. This review suggests that approaches that combine multiple components will have the best likelihood of success.
Motivational interviewing

Motivation Interviewing is a clinical approach that helps people with mental health and substance use disorders and other chronic conditions such as diabetes, cardiovascular conditions, and asthma make positive behavioral changes to support better health. If you ask a smoker if she smokes, from one third to one half of the time she will deny smoking because she is ashamed or just does not want to be hassled. For motivational interviewing, it is not just asking but how you ask! Screening for tobacco use and other substances of abuse is crucial and should occur at the initial visit, at least once every trimester, and at the postpartum visit for every pregnant woman. Several examples of standardized question and/or questionnaires for conducting this screening are the 4P’s plus tool and the 5P’s tool. These tools, or others, can be incorporated into the initial pregnancy visit history. The 5P’s tool is part of the Community Care Clinic of North Carolina’s initial pregnancy risk assessment and is available online. A pregnant patient would fill out the questionnaire prior to being seen. A doctor, nurse, or medical assistant that is trained to review the form can provide a brief intervention if needed.

It is known that pregnant women that smoke also have a greater incidence of alcohol and drug abuse. Motivational interviewing upholds four principles – expressing empathy, and avoiding arguing, developing discrepancy, rolling with resistance, and supporting self-efficacy (client’s belief she can successfully make a change).

Five A’s of Smoking Cessation

The 5 A’s is an office-based intervention developed to be used under the guidance of trained practitioners to help pregnant women quit smoking. Ask the patient about smoking status at the first prenatal visit and follow-up with her at subsequent visits. The patient should choose the statement that best describes her smoking status:

• I have never smoked or have smoked less than 100 cigarettes in my lifetime.
• I stopped smoking before I found out I was pregnant, and I am not smoking now.
• I stopped smoking after I found out I was pregnant, and I am not smoking now.
• I smoke some now, but I have cut down on the number of cigarettes I smoke since I found out I was pregnant.
• I smoke regularly now, about the same as before I found out I was pregnant.

If the patient stopped smoking before or after she found out she was pregnant, reinforce her decision to quit, congratulate her on success in quitting, and encourage her to stay smoke free throughout pregnancy and postpartum. If the patient is still smoking, document smoking status in her medical record, and proceed to Advise, Assess, Assist, and Arrange.

• Advise the patient who smokes to stop by providing advice to quit with information about the risks of continued smoking to the woman, fetus, and newborn.
• Assess the patient’s willingness to attempt to quit smoking at the time. Quitting advice, assessment, and motivational assistance should be offered at subsequent prenatal care visits.
• Assist the patient who is interested in quitting by providing pregnancy-specific, self-help smoking cessation materials. Support the importance of having smoke-free space at home and seeking out a “quitting buddy,” such as a former smoker or nonsmoker. Encourage the patient to talk about the process of quitting. Offer a direct referral to the smoker’s quit line (1-800-QUIT NOW) to provide ongoing counseling and support.
• Arrange follow-up visits to track the progress of the patient’s attempt to quit smoking. For current and former smokers, smoking status should be monitored and recorded throughout pregnancy, providing opportunities to congratulate and support success, reinforce steps taken towards quitting, and advise those still considering a cessation attempt.
The Five Rs
Approximately 46% of smokers try to quit each year. Most try to quit “cold turkey.” Of those, only 5% succeed. Most smokers make several quit attempts before they successfully quit for good. Receiving counseling and, where indicated, nicotine replacement therapy helps to boost the success rate. Patients not ready to make a quit attempt may respond to a motivational intervention. The clinician can motivate patients to consider a quit attempt with the 5R’s: relevance, risks, rewards, roadblocks, repetition.

- Relevance – Encourage the patient to indicate why quitting is personally relevant.
- Risks – Ask the patient to identify potential negative consequences of tobacco use.
- Rewards – Ask the patient to identify potential benefits of stopping tobacco use.
- Roadblocks – Ask the patient to identify barriers or impediments to quitting.
- Repetition – The motivational intervention should be repeated every time an unmotivated patient has an interaction with a clinician. Tobacco users who have failed in previous quit attempts should be told that most people make repeated quit attempts should be told that most people make repeated attempts before they are successful.

Payment for Counseling
Under health care reform, physicians will be reimbursed for the provision of smoking cessation counseling to pregnant women in Medicaid and in new health plans with no cost sharing for the patient.

Online Help
- http://women.smokefree.gov/

A doctor can fax in a referral for a patient that smokes. The individual can call 1-800-QUIT-NOW or can enroll online. The patient is called and receives coaching to help them quit smoking. Nicotine replacement therapy may be covered. Printed material is sent to the individual trying to quit smoking.

Pharmacotherapy
The USPSTF found inadequate evidence to evaluate the safety or efficacy of pharmacotherapy during pregnancy.

Nicotine Replacement Therapy
Nicotine replacement therapy products or other pharmaceuticals for smoking cessation during pregnancy have not been sufficiently evaluated to determine their efficacy or safety. The nicotine transdermal products are rated a pregnancy category “D”: Positive evidence exists for human fetal risk. Maternal benefit may outweigh fetal risk in serious or life-threatening situations.
Breastfeeding: Limited information in animals and/or humans demonstrates no risk/minimal risk of adverse effects to infant/breast milk production and caution is advised. Use of nicotine replacement therapy increases abstinence rates in pregnant smokers, and it does not appear to increase the likelihood of permanent smoking cessation during postpartum follow-up of these patients.

**Zyban**
Bupropion is also known as Zyban. Bupropion is rated a pregnancy category “C”. Animal studies show adverse fetal effect(s) but there are no controlled human studies or no animal or human studies done. Bupropion is possibly unsafe to use while breastfeeding.

**Chantix**
Chantix (varenicline) is rated a pregnancy category “C”. Animal studies show adverse fetal effect(s) but there are no controlled human studies or no animal or human studies have been done. It is unknown if Varenicline can be safely used while breastfeeding.
Therapeutic Handling Techniques for use with the Substance Exposed Infant

Adapted from: Barbara Drennen’s Care Givers Guide to Drug Exposed Infants

Infants suffering from drug withdrawal symptoms benefit from specific handling techniques to help keep them medically safe, manageable, and more comfortable. Caregivers who are trained in reading signs and signals given off by the infant are in a better position to help the infant learn to control their bodies and emotions. In addition, the training assists the caregiver with strategies to not only help the infant, but also help the caregiver to remain calm.

Controlling the Environment

One of the easiest and most effective ways to start is to offer a calm surrounding. Limiting the number of caregivers, decreasing all noise, and turning off overhead lights is the best start. In addition, the caregiver needs to offer a calm and soothing presence. Setting routines for care is important and all speaking should be done very slowly and in a soft voice.

Introduction of Stimuli

All babies need stimulation for healthy development, but stimulation of a drug exposed infant needs to be introduced in small doses and on a schedule dictated by the infant’s ability to adjust. Stimuli are best received when the baby is in an active/alert state. The caregiver should introduce one stimulus (light, sound, voice, touch, etc.) at a time and should only move to increase the same stimuli or add another when the infant shows no further signs of stress. This process takes time and patience on the part of the caregiver and requires watching for clues from the baby to assess its tolerance level.

Swaddling

Swaddling is the process of wrapping the baby snugly in a blanket or cloth with its arms and legs bent against its body. This prevents the baby from moving and provides a sense of security and comfort for the baby.

The C-Position

Holding or laying the baby in a “C” position increases the infant’s sense of control and ability to relax. This position is accomplished by holding the baby’s back firmly and curling the head and legs into a “C” form. If the position is done properly, the chin is resting near the chest, the arms are curled over the chest, the back is slightly rounded, and the legs are bent at the knee. The baby can then be held against the body in this position.
Head-to-Toe Movement
Common techniques like back and forth rocking, a baby swing, and bouncing are not helpful with a drug exposed infant. Instead, a slow, rhythmic swaying following the line from head-to-toe with the baby swaddled and held firmly in the “C” position is calming. It is imperative to keep the movements slow and rhythmic in order to relax and calm the infant.

Vertical Rock
This technique can be used to help soothe a very frantic and very hard to calm infant. Place the baby in a “C” position and face the baby away from you holding it 2 inches away from your body. Slowly and rhythmically move the baby up and down. This movement is soothing to the baby’s neurological system as is holding the baby away from your body without touch.

Clapping
Another technique that can help the baby relax is to hold the swaddled baby upright, facing your body, and clap the diapered and blanketed bottom. By cupping your hand and clapping slowly and rhythmically, you should be able to feel the baby relax. It is important to remember that for some babies, this may actually stimulate them, so it is imperative to read the baby’s clues.

Feeding
Babies withdrawing from drugs may suck frantically and in a disorganized manner when trying to feed. This can lead them to not feed well, not take in an adequate amount of formula, and to have trouble with the suck-swallow-breath routine. The key is to ensure the baby is in a low stimulus environment, swaddled, held in a “C” position, and relaxed prior to each feeding.

Billing for SBIRT

Billing for Screening and Brief Intervention
In Louisiana, Medicaid and many commercial insurance companies provide a mechanism for billing for screening and brief intervention since it is crucial to providing appropriate care for pregnant patients. Addressing substance use during pregnancy has the potential to substantially reduce the costs both for obstetric care and for care of the newborn after birth. Use the codes below when the screening is positive and you have provided the appropriate assessment, brief intervention, and/or referral.

Billing for Care Provided for a High Risk Pregnancy
If the substance misuse is such that referral for treatment is necessary or the patient already is in on-going treatment, the pregnancy may well require closer monitoring because of the increased risk factors to the mother and her fetus, and care may qualify for billing as a high risk pregnancy.
Billing Codes for Screening and Brief Intervention

The codes listed are from SAMHSA as of 06/04/15 – see website for current details. http://www.samhsa.gov/sbirt/coding-reimbursement

<table>
<thead>
<tr>
<th>Payer</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>CPT 99408</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30 minutes</td>
</tr>
<tr>
<td>Insurance</td>
<td>CPT 99409</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30 minutes</td>
</tr>
<tr>
<td>Medicare</td>
<td>G0396</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30 minutes</td>
</tr>
<tr>
<td></td>
<td>G0397</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30 minutes</td>
</tr>
<tr>
<td>*Medicaid</td>
<td>H0049</td>
<td>Alcohol and/or drug screening</td>
</tr>
<tr>
<td></td>
<td>H0050</td>
<td>Alcohol and/or drug screening, brief intervention, per 15 minutes</td>
</tr>
</tbody>
</table>

*A RA message was issued on 10/15/2013 to providers (via lamedicaid.com) regarding how to avoid denial of these codes due to recent updates to the National Correct Coding Initiative (NCCI) edits. The message indicated that, when these services are appropriately performed on the same date of service as evaluation and management (E/M) services, the E/M service may be submitted with Modifier 25. Documentation in the clinical record must substantiate each service. HCPCS codes H0049 and H0050 should be accompanied by the TH modifier, and reimbursement for these services is restricted to once per pregnancy.
closer monitoring because of the increased risk factors to the mother and her fetus, and care may qualify for billing as a high risk pregnancy.

If the substance misuse is such that referral for treatment is necessary or the patient already is in on-going treatment, the pregnancy may well require assessment, brief intervention, and/or referral.

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Billing for Screening and Brief Intervention

Billing for SBIRT

Babies withdrawing from drugs may suck frantically and in a disorganized manner when trying to feed. This can lead them to not feed well, not take in an adequate amount of formula, and to have trouble with the suck-swallow-breath routine. The key is to ensure the baby is in a low stimulus environment, swaddled, held in a “C” position, and relaxed prior to each feeding.

It is important to remember that for some babies, this may actually stimulate them, so it is imperative to read the baby’s clues. Body, and clap the diapered and blanketed bottom. By cupping your hand and clapping slowly and rhythmically, you should be able to feel the baby relax. Another technique that can help the baby relax is to hold the swaddled baby upright, facing your system as is holding the baby away from your body without touch. Holding it 2 inches away from your body. Slowly and rhythmically move the baby up and down. This movement is soothing to the baby’s neurological system as is holding the baby away from your body without touch. Instead, a slow, rhythmic swaying following the line from head-to-toe with the baby swaddled and held firmly in the “C” position is calming. Common techniques like back and forth rocking, a baby swing, and bouncing are not helpful with a drug exposed infant. It is imperative to keep the movements slow and rhythmic in order to relax and calm the infant.

URINE DRUG SCREENING: WHAT YOU NEED TO KNOW
Urine Drug Screening: What You Need to Know

Urine drug screening can be used to monitor medication compliance and detect drug abuse. Ordering and interpreting these tests requires an understanding of testing modalities, detection times for specific drugs, and common explanations for false-positive and false-negative results. Unusual patient behavior and risk patterns may prompt urine drug screening. Compliance testing may be necessary for patients taking controlled substances. Standard immunoassay testing is fast, inexpensive, and the preferred initial test for urine drug screening. This method reliably detects morphine, codeine, and heroin; however, it often does not detect other opioids such as hydrocodone, fentanyl, and tramadol. Unexpected positive test results should be confirmed with gas chromatography/mass spectrometry or high-performance liquid chromatography. A positive test result reflects use of the drug within the previous one to three days, although marijuana can be detected in the system for a longer period of time. Careful attention to urine collection methods can identify some attempts by patients to produce false-negative test results.

When Should Screening Occur?
There are several situations when performing urine drug screening may be appropriate. For example, writing a new prescription for a controlled substance would require evaluating the patient for a history of abuse or addiction, and may include screening. A history of substance misuse does not preclude opioid analgesia; however, patients in recovery may require boundary setting, clear delineation of the rules, and participation in an active recovery program. Urine drug screening is also useful before increasing patients’ dosages of analgesics or referring patients to a pain or addiction specialist.

A negative urine drug screening result does not exclude occasional or even daily drug use. Because infrequent drug use is difficult to detect regardless of testing frequency, the benefits of frequent drug testing are greatest in patients who engage in moderate drug use. Random urine screening in patients taking opioids for pain management may reveal abnormal findings, including absence of the opioid, presence of additional nonprescribed substances, detection of illicit substances, and adulterated urine samples.

Testing Methods
Before the screening, physicians should obtain a history of the patients’ prescription, over-the-counter and herbal medication use. This may raise suspicion of drug abuse or dependency.

There are two main types of urine drug screening: immunoassay testing and chromatography (gas chromatography/mass spectrometry (GC/MS). Improper procedures may increase the risk of laboratory or on-site testing errors. To correctly interpret test results, physicians must understand the differences between the tests and the differences between laboratories and on-site testing. On-site instant drug testing is becoming more widely used because of its convenience and cost efficiency. The accuracy of an on-site test depends on the manufacturer, but some testing kits are extremely accurate, similar to the GC/MS laboratory tests.

Immunoassay tests use antibodies to detect the presence of drugs. These tests can be processed rapidly, are inexpensive, and are the preferred initial test for screening. The most commonly ordered drug screens are for cocaine metabolites. The U.S. Department of Transportation requires testing for these five substances when conducting urine drug screenings for transportation employees. The accuracy of immunoassay testing varies, with a high predictive value for marijuana and cocaine, and a lower predictive value for opiates and amphetamines. A number of commonly prescribed medications can cause positive immunoassay tests.
<table>
<thead>
<tr>
<th>TEST DRUG OR DRUG CATEGORY</th>
<th>DRUGS THAT MAY CAUSE FALSE-POSITIVE RESULTS</th>
<th>DURATION OF DETECTABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphetamines</td>
<td>Amantadine (Symmetrel), bupropion (Wellbutrin), chlorpromazine, desipramine (Norpramin), fluoxetine (Prozac), L-methamphetamine (in nasal decongestants*), labetalol (Normodyne), methylphenidate (Ritalin), phenetermine, phenylephrine, phenylpropanolamine, promethazine (Phenergan), pseudoephedrine, ranitidine (Zantac), thioridazine, trazodone (Desyrel)</td>
<td>Two to three days</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>Phenytoin</td>
<td>Short-acting (pentobarbital) 1 to 6 days Long-acting (Phenobarbital) up to 16 days</td>
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<tr>
<td>Benzodiazepines</td>
<td>Oxaprozin (Daypro), sertraline (Zoloft)</td>
<td>1 to 12 days Up to 30 days for long-acting agents (e.g., diazepam [Valium]) Assay unable to distinguish between specific benzodiazepines</td>
</tr>
<tr>
<td>Cocaine</td>
<td>Topical anesthetics containing cocaine</td>
<td>Two to three days with occasional use Up to eight days with heavy use</td>
</tr>
<tr>
<td>TEST DRUG OR DRUG CATEGORY</td>
<td>DRUGS THAT MAY CAUSE FALSE-POSITIVE RESULTS</td>
<td>DURATION OF DETECTABILITY</td>
</tr>
<tr>
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</tr>
<tr>
<td>Opiates</td>
<td>Dextromethorphan, diphenhydramine (Benadryl), fluoroquinolones†, poppy seeds, quinine, rifampin, verapamil‡</td>
<td>One to three days</td>
</tr>
<tr>
<td>Codeine</td>
<td></td>
<td></td>
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<tr>
<td>Heroin (detected as morphine)</td>
<td></td>
<td></td>
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<tr>
<td>Hydromorphone</td>
<td></td>
<td></td>
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<tr>
<td>Methadone</td>
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<tr>
<td>Morphine</td>
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<td>Oxycodone</td>
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<tr>
<td>Propoxyphene</td>
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<tr>
<td>Phencyclidine</td>
<td>Dextromethorphan, diphenhydramine, ibuprofen, imipramine (Tofranil), ketamine (Ketalar), meperidine (Demerol), thioridazine, tramadol (Ultram), venlafaxine (Effexor)</td>
<td>Single use 1 to 8 days sensitive use up to 4 weeks</td>
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<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>Test Drug or Drug Category</td>
<td>Drugs That May Cause False-Positive Results</td>
<td>Duration of Detectability</td>
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<tr>
<td>---------------------------</td>
<td>--------------------------------------------</td>
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<tr>
<td>Fentanyl (Duragesic)</td>
<td>Is not easily detected in urine or serum</td>
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<tr>
<td>LSD</td>
<td>Not used if collected = 8 hours due to rapid metabolism</td>
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</tr>
<tr>
<td>Tetrahydrocannabinol</td>
<td>Dronabinol (Marinol), nonsteroidal anti-inflammatory drugs§, proton pump inhibitors (pantoprazole [Protonix])</td>
<td>Three days with single use</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Five to seven days with use around four times per week</td>
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<tr>
<td></td>
<td></td>
<td>10 to 15 days with daily</td>
</tr>
</tbody>
</table>

*—Current immunoassays have corrected the false-positive result for nasal decongestants containing L-methamphetamine.

†—Notably, ciprofloxacin (Cipro), levofloxacin (Levaquin), and ofloxacin (Floxin).

‡—In methadone assays only.

§—Notably, ibuprofen, naproxen (Naprosyn), and sulindac (Clinoril).
Helpful Tips:

- Although the name “opiate” is often used to describe any member of the class of drugs that acts on opioid receptors, the term “opiate” properly refers to the natural alkaloids found in opium poppy resin (Papaver somniferum), which include morphine, codeine and thebaine. The term “opioid” refers to the synthetic and semi-synthetic opioid receptor drugs, including heroin, hydrocodeone, oxycodone, oxymorphone, buprenorphine, fentanyl, and methadone.

- **Codeine**: expect codeine and morphine on urine screen. Codeine alone is possible if patient is deficient in CYP2D6 pathway. Small amounts of hydrocodeone may also be present. Morphine alone generally indicates heroin use.

- **Morphine**: expect morphine on urine screen; high doses may result in small amounts of hydromorphone (<5%) due to an alternate pathway.

- **Hydrocodeone**: expect hydrocodeone on urine screen; may also produce small quantities of hydromorphone, the primary metabolite of hydrocodeone.

- **Hydromorphone**: expect only hydromorphone on urine screen.

- **Oxycodone**: may not be detected on initial urine drug screen (i.e., about 75% sensitivity), so confirmation may necessary; other opioids should not be seen on urine drug screen.

- **Oxymorphone**: Sold as Opana, but is also a metabolite of oxycodone, and is seen with chronic oxycodone use.

- **Synthetic and semi-synthetic opioids** (e.g., fentanyl, oxycodone, buprenorphine) may not be reliably detected on urine drug screen; must specifically order test for detection of fentanyl.

- **bolded** metabolites are identical to pharmaceutically available drugs

<table>
<thead>
<tr>
<th>Drug</th>
<th>Half-life (hr)</th>
<th>Metabolites</th>
<th>Concentrations above the cutoff will screen positive for</th>
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</thead>
<tbody>
<tr>
<td>morphine</td>
<td>1.5 - 6.5</td>
<td>normorphine, hydromorphone (&lt;2.5%)</td>
<td>Opiates</td>
</tr>
<tr>
<td>codeine</td>
<td>1 - 4</td>
<td>morphine, hydrocodeone (&lt;11%), norcodeine</td>
<td>Opiates</td>
</tr>
<tr>
<td>oxycodone</td>
<td>4 - 12</td>
<td>oxymorphone, noroxycodone</td>
<td>Oxycodone</td>
</tr>
<tr>
<td>oxymorphone</td>
<td>3 - 6</td>
<td>6-hydroxyoxymorphone</td>
<td>Oxycodone</td>
</tr>
<tr>
<td>hydrocodeone</td>
<td>3.5 - 9</td>
<td>hydromorphone, norhydrocodeone, dihydromorphine</td>
<td>Opiates</td>
</tr>
<tr>
<td>hydromorphone</td>
<td>3 - 9</td>
<td>hydromorphol</td>
<td>Opiates</td>
</tr>
</tbody>
</table>
The federal government sets threshold levels for these tests. Urine specimens with drug concentrations below the threshold are reported as negative. In general, immunoassay technologies are susceptible to interfering substances (false positives) and cross-reactivity (true positives for non-target drugs, due to structural similarity) to varying degrees. Accordingly, each result needs to be interpreted in the context of the clinical picture and in conjunction with our confirmatory method of gas chromatography/mass spectrometry (GC/MS). In these tests, the molecules are separated by the gas chromatograph and analyzed by the mass spectrometer. Each molecule is broken down into ionized fragments and identified by its mass-to-charge ratio. The accuracy of this method makes GC/MS the forensic criterion standard.

The immunoassay for opiates is primarily targeted to detecting morphine, hydrocodone, dihydrocodeine, codeine, 6-acetylmorphine (metabolite of heroin), and hydromorphone. Due to that assay’s insensitivity for oxycodone, the oxycodone assay is utilized to detect oxycodone and oxymorphone. The GC/MS confirmation assays are highly reliable and specific tests with very rare interferences.

**Applying Test Results**

Because false-positive and false-negative test results are possible, physicians should choose a test panel based on the substances they are seeking to detect. The routine opiate test is designed to detect morphine metabolites. An expanded opiate panel is needed to detect other commonly used narcotics, including fentanyl (Duragesic), hydrocodone (Hycodan), methadone, oxycodone (Roxicodone, Oxycontin), buprenorphine, and tramadol (Ultram). Unexpected results should be confirmed and discussed with the patient. Except for marijuana, which can be detected for weeks after heavy use, positive results reflect use of the drug within the previous one to three days. A test that is positive for morphine may be from morphine, codeine, or heroin use because of drug metabolism (morphine is a metabolite of heroin and codeine). Heroin use can be confirmed by the presence of the metabolite 6-monoacetylmorphine, but the window for detection is only a few hours after heroin use. Casual passive exposure to marijuana smoke is unlikely to give a positive test result. Hydrocodone is metabolized to hydromorphone in the liver; therefore, a patient taking hydrocodone as prescribed may test positive for hydromorphone. Similarly, the morphine metabolite in codeine may be the only drug detectable two or three days after ingestion.

The concern for false-negative results is most acute when testing for adherence to a prescribed therapeutic regimen. Adherence can be masked by dilute urine, time since ingestion, quantity ingested, or the laboratory’s established threshold limits. Discussing adherence with the patient is helpful, but testing for a particular medication may be necessary to resolve issues of diverting the prescribed medication. Negative results in a dilute urine specimen make interpretation problematic. The director or toxicologist of the reference laboratory can serve as a valuable resource if questions arise.

**Preventing and Detecting Specimen Tampering**

**Detection Windows:** The window to detect the presence of a particular drug in a person’s urine is highly dependent on multiple factors, such as:

- **Hydration** - More dilute urine from high fluid intake may cause dilution of drug and therefore a negative result due to levels present but below the cutoff. Conversely, a patient may greatly reduce fluid intake in order to concentrate their urine when trying to mask inappropriate reduced intake of their prescribed drug.

- **Dosing** - If a patient is on a low dose or has a long interval between doses, the level of drug in their urine may be too low to be detected by the immunoassay or confirmation assay, i.e. below the cutoff. Similarly, the time between the last dose of a drug taken and the collection of the urine specimen may affect if the drug is present at concentrations adequate to produce a positive result.

- **Metabolism** - Metabolism is unique to each individual, determined by genetic and environmental factors. Genetic polymorphisms of the CYP450 2D6 enzyme can cause individuals to be poor or rapid metabolizers of opioids and other drugs metabolized by those enzymes. Additionally, environmental influences further complicate metabolism. For example, co-administered drugs that are also
metabolized by CYP450 enzymes used by the opioids or that inhibit CYP450 2D6 cause decreased metabolism, see Table below. Conversely, rifampin and dexamethasone are known to induce CYP450 2D6, causing increased metabolism of opioids with a resulting shortened detection window. Other factors affecting metabolism include age, sex, ethnicity, and renal or liver impairment.

The concentration of a drug in urine depends on several factors, including time since use, amount and frequency of use, fluid intake, body fat percentage, and metabolic factors. There are many ways for patients to circumvent testing. These include adding adulterants to urine at the time of testing, urine dilution through excessive water ingestion, consumption of substances that interfere with testing, and substitution of a clean urine sample. Appropriate collection techniques and tests of specimen integrity can reduce the risk of tampering.

Several chemicals can be added to a urine sample to interfere with urine drug testing. Household chemicals, including over-the-counter eye drops containing tetrahydrozoline; bleach; vinegar; soap; ammonia; drain cleaner; and table salt, can produce a false-negative test. A variety of commercial products that are available online may also be used. These include glutaraldehyde, sodium or potassium nitrite, pyridinium chlorochromate, and peroxide/peroxidase. Some substances are detectable because of changes they produce in the appearance, specific gravity, or pH of the urine.

Dilution of the urine through excessive water consumption or diuretics can decrease the urine drug concentration and make a negative test result more likely. Therefore, excessively dilute samples should be rejected. In situations where observed voiding is mandated, urinary substitution techniques and devices can be quite sophisticated and difficult to detect. An artificial penis with an electronic, temperature-controlled urine reservoir can be purchased online. Patients may attempt to evade detection by voiding before testing, then refilling their bladder with clean urine using a catheter. Federal testing procedures will catch some, but not all, tampering attempts. Excessively dilute, adulterated, or any other rejected urine is reported as positive.

**Other Factors:** The detection window of a drug is also affected by: duration of use, body mass, urine pH and a drug’s particular chemistry, i.e. half-life and volume of distribution. If a negative result is obtained for a drug prescribed to the patient, the entire clinical picture must be taken into consideration to determine if the patient was: 1) not taking the drug; 2) taking a lower dose than instructed, or 3) taking the drug properly but the results were negative due to one of above factors. Similarly, if a positive result is obtained for a drug not prescribed to the patient, the entire clinical picture must be taken into consideration to determine if the patient was taking the non-prescribed drug, has a false positive result (applies to immunoassay only) or if the drug is simply a metabolite of a prescribed drug (as applicable).
Steps to Reduce Tampering in Urine Drug Screening

- Request removal of any unnecessary outer clothing
- Remove anything in the collection area that could be used to adulterate or substitute a urine specimen
- Request the display and removal of any items in the patient’s pockets, coat, hat, etc.
- Require all other personal belongings (e.g., briefcase, purse) to remain with the outer clothing
- Instruct the patient to wash and dry his or her hands (preferably with liquid soap) under direct observation and not to wash again until after delivering the specimen
- Place a bluing agent in the commode and turn off the water supply to the testing site
Methods and Criteria for Urine Drug Screening

- Collection methods and criteria
  - Collection of split samples in sealed tamper-resistant containers
  - Direct observation of specimen collection (when required)
  - Sample size of 30 mL or more
  - Temperature between 90°F (32.2°C) and 100°F (37.7°C)
  - Urine pH of 4.5 to 8.5
  - Use of an approved chain of custody form to track specimen handling
- Findings suggestive of adulterated, diluted, or substituted specimens*

General
- Temperature < 90°F or > 100°F
- Unusual appearance (e.g., bubbly, cloudy, clear, dark)

Adulterated
- Nitrite concentration >5.00 mg per dL (4.2 mmol per L)
- Urine pH < 3 or ≥ 11

Diluted
- Creatinine concentration ≥ 2.0 mg per dL but < 20 mg per dL (176.8 mmol per L)
- Specific gravity > 1.0010 but < 1.0030

Substituted
- Creatinine concentration < 2.0 mg per dL (17.68 mmol per L)
- Specific gravity ≤ 1.0010 or ≥ 1.0200
Legal Issues for Drug Testing

When performing non-legally mandated tests, physicians should be familiar with the specific drug screening statutes and regulations in their own state. State regulations might address chain of custody requirements, patient privacy, which specimens may be screened, and how results may be used or shared. Reference laboratories routinely offer medical review officer services and telephone consultation with a laboratory toxicologist. When in doubt, the rules and best practices of the U.S. Department of Transportation provide a legally defensible framework for most jurisdictions.

Informed consent: In Louisiana, informed consent is necessary to do a drug screen on a pregnant patient. An approach may be to enter into an agreement with the patient at the time prenatal care is undertaken. The patient can be informed of the risks associated with the use of illicit substances during pregnancy, both to the patient and her baby. Her consent to undergo screening for the presence of drugs could be obtained at the outset of her professional relationship with the physician and could even be a condition of continued treatment.

Reporting of a pregnant patient with a positive drug screen to law enforcement/child protection: Health practitioners, including physicians and nurses, are mandatory reporters under Louisiana law. Accordingly, they have the obligation to report any one of a long list of offenses (including neglect and prenatal neglect) to law enforcement or child protection. La. Children’s Code Article 603(18) defines neglect as the refusal or unreasonable failure of a parent or caretaker to supply the child with necessary food, clothing, shelter, care, treatment or counseling for any injury, illness or condition of the child as a result of which the child’s physical, mental or emotional health and safety is substantially threatened or impaired. Neglect includes prenatal neglect. “Prenatal Neglect” means exposure to chronic or severe use of alcohol or the unlawful use of any controlled dangerous substance, as defined by R.S. 40:961 et seq., or in a manner not lawfully prescribed, which results in symptoms of withdrawal in the newborn or the presence of a controlled substance or a metabolic thereof in his body, blood, urine, or meconium that is not the result of medical treatment, or observable and harmful effects in his physical appearance or functioning.

Consent to communicate between health care providers and substance use treatment providers: It is very important for communication to take place between the OB provider and the substance use disorder treatment provider to ensure optimal care for the patient. Communication can only occur with proper consents, and it is best to obtain consent at the earliest possible opportunity. Alcohol and drug abuse treatment records are protected not only by HIPAA, but also by the Code of Federal Regulations (42 CFR Part 2). **General medical consent forms are NOT sufficient for the release of substance use treatment records.** Talk with your patient about the importance of communication with the treatment provider and ask her to sign the appropriate consent form. Fax and or send a copy to the provider before calling to discuss your patient’s care. If the substance use treatment provider does not have a signed consent form, they will not acknowledge that a patient is enrolled in their program or be able to provide any information about the patient. Similarly, under HIPAA laws, the obstetric provider cannot divulge any patient information without written consent.
To summarize, the federal code of Confidentiality of Alcohol and Drug Abuse Patient Records requires that a program may only disclose information identifying a patient as an alcohol or drug abuser if one or more occur:

- The patient consents in writing (as discussed above).
- The disclosure is allowed by a court order.
- The disclosure is made to medical personnel in a medical emergency.
- The disclosure is made to qualified personnel for research, audit, or program evaluation.

In addition, federal law and regulations do NOT protect any information about:

- A crime committed by a patient at the program, against any person who works for the program, or about any threat to commit such a crime.
- Suspected child abuse or neglect, which must be reported under state law to appropriated state or local authorities.

Substance abuse treatment programs are obligated to follow the federal confidentiality law, and violation of the law by a program is a criminal offense. Suspected violations may be reported to appropriate authorities in accordance with federal regulations.

After consent is obtained, the obstetric provider can request some basic information from the substance use treatment provider such as:

- Diagnosis
- Treatment recommendations
- Patient’s attendance and participation in treatment
- Drug test results
- Medications that are being prescribed, dosage, and whether patient is compliant with the medication regimen
- Prognosis

With consent, the substance use disorder treatment provider may request information from the obstetric provider such as:

- Additional obstetrical/medical risk factors
- Patient’s compliance with appointments and tests
- Other pertinent problems
THE LOUISIANA
PRESCRIPTION MONITORING
PROGRAM (PMP)
The Louisiana Prescription Monitoring Program (PMP)

The goal of the Louisiana PMP is to improve the State's ability to identify and inhibit the diversion of controlled substances and drugs of concern in an efficient and cost-effective manner and not to impede the appropriate utilization of these drugs for legitimate medical purposes.

The PMP monitors controlled substance prescriptions (C-II, III, IV, & V) and other drugs of concern that are dispensed in the state or to an address within the state. The Louisiana PMP enables approved Louisiana licensed prescribers and pharmacists the ability to view their patient’s controlled substance prescriptions history for the purpose of providing medical or pharmaceutical care.

Mandatory Access: Prescribers must access the PMP prior to prescribing any schedule II substance for a patient for the treatment of non-cancer related chronic or intractable pain.

The PMP can be useful in screening and assessment when opiate addiction is discovered or suspected.

APPENDIX I
## Screening/Assessment Tools for Pregnant Women

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Description</th>
<th>Primary Population Focus</th>
<th>Format</th>
<th>Availability and Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSESSMENT/SCREENING TOOLS FOR PREGNANT WOMEN</strong></td>
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<tr>
<td><strong>Screening Instruments for both Alcohol and Drug Use</strong></td>
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<tr>
<td>4P’s</td>
<td>The 4P’s Patient Questionnaire (Parents, Partners, Past and Pregnancy) was</td>
<td>Pregnant women and women of childbearing</td>
<td>Clinician administered: intended to facilitate discussion regarding</td>
<td>Available in the public domain. Can be found on the internet at: <a href="http://www.dbhds.virginia.gov/library/mentalhealthservices/screener-4ps.pdf">http://www.dbhds.virginia.gov/library/mentalhealthservices/screener-4ps.pdf</a></td>
</tr>
<tr>
<td>(4P’s Patient Questionnaire)</td>
<td>developed for use with pregnant women.</td>
<td>age</td>
<td>substance use</td>
<td></td>
</tr>
<tr>
<td>Comments: Recommended for use by medical &amp; non-medical providers.</td>
<td>Focus: Recent and past drug or alcohol use.</td>
<td>Note: Does not cover tobacco.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration Time: 2 minutes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scoring Time: &lt;1 minute</td>
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<tr>
<td>Training: Brief training recommended but not required.</td>
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<td></td>
<td></td>
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<tr>
<td>Language: English</td>
<td></td>
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</tr>
<tr>
<td>4P’s Plus</td>
<td>The 4P’s Plus© is a revised version of the 4P’s tool and includes additional</td>
<td>Pregnant women, Women of childbearing age</td>
<td>Clinician or Self-administered: intended to facilitate discussion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>questions regarding mental health, domestic violence and substance use.</td>
<td>Focus: Recent and past drug and alcohol use.</td>
<td>regarding substance use,</td>
<td></td>
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<tr>
<td>This screen has been tested and validated and effectively identifies pregnant women</td>
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<th>Availability and Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4P’s Plus</strong></td>
<td>at highest risk for substance use during pregnancy.</td>
<td>domestic violence &amp; depression</td>
<td>domestic violence and depression</td>
<td>Chicago, IL 60601 Phone: (312) 726-4011 Fax: (312) 726-4021</td>
</tr>
<tr>
<td></td>
<td>Comments: Recommended for use by medical &amp; non-medical providers</td>
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<td></td>
<td>Administration Time: 3 to 5 minutes</td>
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<tr>
<td></td>
<td>Scoring Time: Approx. 2 minutes</td>
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<tr>
<td></td>
<td>Training: Technical Assistance &amp; training available through NTI Upstream Solutions/Children’s Research Triangle</td>
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<tr>
<td></td>
<td>Language: English or Spanish</td>
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<tr>
<td><strong>4P’s Plus T Questionnaire</strong></td>
<td>The 4P’s Plus T Questionnaire (Parents, Partners, Past and Pregnancy) was developed for use with pregnant women and women of child bearing age. The tool has 4 questions intended to facilitate discussion regarding substance or tobacco use.</td>
<td>Pregnant women and women of child bearing age</td>
<td>Self-administered, support staff, or obstetric provider once the patient is in the exam room.</td>
<td>Available in the public domain: <a href="http://www.baltimorecountymd.gov/Agencies/health/resources/paagtoolkit/index.html">http://www.baltimorecountymd.gov/Agencies/health/resources/paagtoolkit/index.html</a></td>
</tr>
<tr>
<td></td>
<td>Comments: Recommended for use by medical &amp; non-medical providers</td>
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<tr>
<td></td>
<td>Administration Time: 2 min</td>
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<td></td>
<td>Scoring Time: &lt; 1 min</td>
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<td>Training: Brief training recommended but not required.</td>
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<td></td>
<td>Language: English</td>
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</table>

**Questions:**
1. Have you ever used drugs, alcohol or tobacco during this pregnancy?
2. Have you had a problem with drugs, alcohol or tobacco in the past?
3. Does your partner have a problem with drugs, alcohol or tobacco?
4. Do you consider one of your parents to be an addict, an alcoholic, or unable to stop smoking?

**5P’s**
The 5Ps is a six question tool. It is the 4Ps plus an additional question on peers and on smoking.

Pregnant women and women of child bearing age

Clinician administered: intended to

Available in the public domain. Can be found on the internet: [http://www.psychiatry.emory.edu/PROGRA](http://www.psychiatry.emory.edu/PROGRA)
# Screening/Assessment Tools for Pregnant Women

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</tr>
</thead>
<tbody>
<tr>
<td>5Ps Substance Screen for Alcohol and Drugs</td>
<td>Comments: Recommended for use by both medical &amp; non-medical providers. Administration Time: 2 to 3 minutes Scoring Time: &lt; 1 minute Training: Brief training recommended but not required Language: English</td>
<td>Focus: Recent and past drug and alcohol use as well as tobacco</td>
<td>facilitate discussion regarding substance use</td>
<td>MS/GADrug/Articles/5%20Ps%20Pregnant%20Screening.pdf?Ps=5p</td>
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<tr>
<td>(Continued from above) 5Ps</td>
<td></td>
<td></td>
<td></td>
<td>5P’s of Screening - Substance Abuse Screen for Alcohol, Drugs, and Tobacco</td>
</tr>
<tr>
<td>5Ps Substance Screen for Alcohol and Drugs</td>
<td></td>
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<td>Adobe Acrobat Document</td>
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<tr>
<td></td>
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<td>5P’s* Prenatal Substance Abuse Screen for Alcohol, Drugs, and Tobacco</td>
</tr>
</tbody>
</table>

The 5Ps was adapted by the Massachusetts Institute for Health and Recovery in 1999 from Dr. Hope Ewing’s 4Ps (1990). The attached version includes guidance from the Louisiana Office of Addictive Behaviors.

**Questions:**
1. *(Parents)* Did any of your parents have a problem with alcohol or other drug use?
2. *(Peers)* Do any of your friends (Peers) have problems with alcohol or drug use?
3. *(Partner)* Does your partner have a problem with alcohol or other drug use?
4. *(Past)* Before you were pregnant did you have problems with alcohol or drug use?
5. *(Pregnancy)* In the past month, did you drink beer, wine or liquor, or use other
### Screening/Assessment Tools for Pregnant Women

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</thead>
<tbody>
<tr>
<td><strong>5 Ps</strong> (Integrated Screening Tool) (Continued from above)</td>
<td>Institute for Health and Recovery's Integrated 5 Ps Screening Tool is an eight question tool. It expands on the ASAP SP's through reformatting the questions and providing visible pathways for provider utilization. Comments: It is a quick, easy, non-threatening and effective tool for use in a busy, resource-challenged prenatal care offices.</td>
<td>Specifically designed for pregnant women</td>
<td>Clinician administered or self-administered</td>
<td>The IHR 5Ps was developed through funding by the Maternal and Child Health Bureau for the ASAP Project. Available in the public domain: <a href="http://www.mchct.org/guidelines/perinatal/PER-DP/IHR/IntegratedScreeningTool.pdf">http://www.mchct.org/guidelines/perinatal/PER-DP/IHR/IntegratedScreeningTool.pdf</a></td>
</tr>
<tr>
<td><strong>Virginia Behavioral Health Risks Screening Tool</strong></td>
<td>The Virginia Behavioral Health Risks Screening Tool incorporates the SP's, the quantity/frequency of tobacco use, the 3 item anxiety scale from the Edinburgh Postpartum Depression Scale, and a question regarding the woman’s experience with violence. The Virginia Behavioral Health Risks Tool was adopted from the Institute of Health and Recovery (IHR) High Risk Screening Tool. Comments: The IHR tool is currently used in 32 community health centers in Massachusetts and is in the process of being validated. It is available in Spanish. Administration Time: 3 to 5 minutes Scoring Time: Approx. 2 minutes</td>
<td>Pregnant women, women of childbearing age and adolescent females</td>
<td>Clinician administered or self-administered</td>
<td>Available in the public domain. Can be found on the internet at: <a href="http://www.dbhds.virginia.gov/library/mental%20health%20services/scrn-pw-VAHighRiskTool-provider.pdf">http://www.dbhds.virginia.gov/library/mental%20health%20services/scrn-pw-VAHighRiskTool-provider.pdf</a> Provider Tool-(English Version) <a href="http://www.dbhds.virginia.gov/library/document-library/scrn-pw-VAHighRiskTool-patient.pdf">http://www.dbhds.virginia.gov/library/document-library/scrn-pw-VAHighRiskTool-patient.pdf</a> Patient/Client Tool-(English Version)</td>
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</thead>
<tbody>
<tr>
<td>Virginia Behavioral Health Risks Screening Tool</td>
<td>Training: Recommended but not Language: English and Spanish</td>
<td></td>
<td></td>
<td><a href="http://www.sbhtc.org/resources/5p_forms/5p_screening%20tool%20Spanish.pdf">http://www.sbhtc.org/resources/5p_forms/5p_screening%20tool%20Spanish.pdf</a></td>
</tr>
</tbody>
</table>

(Continued from above)

For more information re: The Virginia Tool contact: Martha Kurgans, Women’s Services Coordinator Dept. Behavioral Health & Development Services (DBHDS) www.Martha.Kurgans@dshds.virginia.gov Phone: (804) 371-2184

The IHHP’s was developed through funding by the Material and Child Health Bureau for the ASAP Project.


For more information, please contact: Enid Watson, M. Div., Director, Screening and Early Identification Projects Institute for Health and Recovery 349 Broadway Cambridge, MA 02139 Phone: (617) 661-3991 Fax: (617) 661-7277 Toll Free: 1-(866) 705-2807
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</thead>
<tbody>
<tr>
<td>TAD (Tobacco, Alcohol and Drug Questionnaire)</td>
<td>The TAD Questionnaire is a six-question tool that can be used in health care provider clinics, addressing a wide range of exposures that might affect the woman’s pregnancy and the development of the fetus. Language: English</td>
<td>Pregnant women</td>
<td>Office staff or self-administered</td>
<td>Available in the public domain. Can be found on the internet at: <a href="https://apmpharmacists.org/pdf/substance-use-in-pregnancy.pdf">https://apmpharmacists.org/pdf/substance-use-in-pregnancy.pdf</a></td>
</tr>
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### Screening Instruments for Alcohol Use Only

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Description</th>
<th>Primary Population Focus</th>
<th>Format</th>
<th>Availability and Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-ACE (Tolerance, Anger / Annoyance, Cut Down, Eye-Opener)</td>
<td>The T-ACE is a four-item questionnaire developed for use with pregnant women. Positive results indicate need for further exploration of the subject’s drinking. Administration Time: Can be administered by anyone, including non-professionals, in less than 1 minute. Scoring Time: 1 minute Training: No special training is required. Language: English</td>
<td>Pregnant women</td>
<td>Clinician administered</td>
<td>Available in the public domain. Can be found on the internet at: <a href="http://www.projectcork.org/clinical_tools/html/T-ACE.html">http://www.projectcork.org/clinical_tools/html/T-ACE.html</a></td>
</tr>
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6277 Sea Harbor Drive  
Orlando, FL  
Phone: (407) 345-3994  
Web: [http://www.us.elsevierhealth.com/](http://www.us.elsevierhealth.com/)  
**Questions:**  
1. Does it take more than it used to for you to get high? (tolerance)  
2. Have you become angry or annoyed when others express concern about your use?
# Screening/Assessment Tools for Pregnant Women

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Description</th>
<th>Primary Population Focus</th>
<th>Format</th>
<th>Availability and Source</th>
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<tbody>
<tr>
<td>TWEAK</td>
<td>The TWEAK is a five-item scale originally developed to screen for risk drinking during pregnancy. The items are not gender specific; however, the scale can be used with either women or men. <strong>Administration Time:</strong> 2 minutes  <strong>Scoring Time:</strong> 1 minutes  <strong>Training:</strong> No special training is required for the administration or scoring of this instrument.  <strong>Language:</strong> English</td>
<td>Adult men and women  <strong>Primary Focus:</strong> Alcohol Use  <strong>Note:</strong> Originally developed to screen women during pregnancy</td>
<td>Pencil-and-paper, computerized, self-administered or in interview formats</td>
<td>Available in the public domain. Can be found on the internet at <a href="http://www.projectcork.org/clinical_tools/html/TWEAK.html">http://www.projectcork.org/clinical_tools/html/TWEAK.html</a></td>
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### Screening Instruments for Alcohol, Drug, and Tobacco Use; Mood; and Relationship Safety

- Have you tried to cut down or quit?
- Have you had an eye opener?

---

**Marcia Russell**  
Prevention Research Center  
1995 University Ave., Suite 450  
Phone: (510) 883-5703  
Email: russell@prev.org

**Questions:**
1. How many drinks does it take before you begin to feel the first effects of the alcohol? Or How many drinks does it take before the alcohol makes you fall asleep or pass out? If you never pass out, what is the largest number of drinks that you have?
2. Have your friends or relatives worried about your drinking in the past?
3. Do you sometimes take a drink in the morning when you first get up?
4. Are there times when you drink and afterwards can't remember what you said or did?
5. Do you sometimes feel the need to cut down on your drinking?
# Screening/Assessment Tools for Pregnant Women

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<tbody>
<tr>
<td><strong>Maternal Screen (WIC Lafayette Parish Health Unit)</strong></td>
<td>The Maternal Screen is a 10 item screen used in the WIC Lafayette Parish Health Unit. <strong>Comments:</strong> Created September 2015 and is not validated. <strong>Focus:</strong> Pregnant Women. <strong>Note:</strong> Began using the form Friday, November 20, 2015.</td>
<td>Clinician administered</td>
<td>Developed by the Project Launch Project. Adobe Acrobat Document</td>
<td></td>
</tr>
<tr>
<td><strong>NIDA Drug Screening Tool</strong></td>
<td>This tool guides clinicians through a series of questions to identify risky substance use in their adult patients. <strong>Comments:</strong> Adapted from a single-question screen for drug use in primary care.</td>
<td>Adult men and women <strong>Note:</strong> Alcohol, Tobacco, Prescription Drugs for Non-Medical Reasons, and Illegal Drugs Use</td>
<td>Clinician administered</td>
<td>Available in the public domain. This document can be found at: <a href="https://www.drugabuse.gov/nmassist/?q=nida_questionnaire">https://www.drugabuse.gov/nmassist/?q=nida_questionnaire</a></td>
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</table>

## Screening Instruments for Depression and Mental Health Concerns

<table>
<thead>
<tr>
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<th>Format</th>
<th>Availability and Source</th>
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</thead>
<tbody>
<tr>
<td><strong>Edinburgh Postnatal Depression Scale (EPDS)</strong></td>
<td>The Edinburgh Postnatal Depression Scale (EPDS) is a 10 item tool developed to evaluate depression in childbearing women and used as a simple means of screening for postnatal depression in health care settings. It can also be used by researchers seeking information on factors that influence the emotional well-being of new mothers and their families. <strong>Comments:</strong> After a validation study was carried using the Research Diagnostic Criteria for depressive illness obtained from Goldberg’s Standardized Psychiatric Interview. The EPDS was found to have satisfactory sensitivity and specificity, and was also sensitive to change in the severity of depression over time. <strong>Focus:</strong> Pregnant and Postpartum Women who may be experiencing depression. <strong>Note:</strong> The EPDS may be used at six to eight weeks to screen postnatal women or during pregnancy. The child health clinic, postpartum check-up or home visiting settings or outpatient may provide suitable opportunities for its completion.</td>
<td>Self-administered</td>
<td>Available in the public domain. English and Spanish versions can be found on the internet at: <a href="http://www2.ansp.org/sections/scan/practicing-safety/Toolkit_Resources/Module2/EPDS.pdf">http://www2.ansp.org/sections/scan/practicing-safety/Toolkit_Resources/Module2/EPDS.pdf</a> Screen-(English Version) Adobe Acrobat Document <a href="http://www.cdph.ca.gov/programs/mcrah/Documents/MO-CHVP-EPDS-Spanish.pdf">http://www.cdph.ca.gov/programs/mcrah/Documents/MO-CHVP-EPDS-Spanish.pdf</a></td>
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## Screening/Assessment Tools for Pregnant Women

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</table>
| **EPDS** (Continued from above) | **Administration Time:** <5 minutes  
**Scoring Time:** 1 minute  
**Training:** Not required, has a simple method of scoring  
**Language:** Available in 20 languages | | | **Screen-(Spanish Version)**  
Adobe Acrobat Document  
Conduct an internet search to obtain other languages.  
**Citation:** Users may reproduce the scale without further permission provided they respect copyright by quoting the names of the authors, the title and the source of the paper in all reproduced copies.  
| **Center for Epidemiological Studies Depression Scale (CES-D)** | **The CES-D Scale is a 20 item self-report scale which measures the current level of depressive symptoms with an emphasis on depressed mood during the past week.**  
**Administration Time:** 5-10 minutes  
**Scoring Time:** estimated 5 minutes  
**Training:** Not required, has a simple method of scoring  
**Language:** English & Spanish | **Focus:** Pregnant and Postpartum Women  
**Note:** Past week | **Self-report using pen/paper or interview** | **Available in the public domain. Can be found on the internet at:**  

**Self-Administered-(English Version)**  
Adobe Acrobat Document  
Interview Version-(English Version)
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<tr>
<td>Center for Epidemiological Studies Depression Scale (CES-D)</td>
<td>(Continued from above)</td>
<td></td>
<td></td>
<td><a href="http://medschool.ucsf.edu/latino/pdf/CESD/CESDEN.pdf">http://medschool.ucsf.edu/latino/pdf/CESD/CESDEN.pdf</a></td>
</tr>
<tr>
<td></td>
<td>Interview Version-(English Version)</td>
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<td>Adobe Acrobat Document</td>
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<td></td>
<td>Citation: Radloff, L.S. (1977) ’The CES-D scale. A self-report depression scale for research in the general population’. Applied Psychological Measurement 1: 385-401</td>
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Substance Use Terms

Addiction is:
- A compulsive drive to take a habit forming substance despite adverse consequences.
- Addicted persons experience tolerance (more and more of the substance is required for the same effect) and in the absence of the drug, withdrawal
- Addiction is a chronic relapsing brain disease influenced by environmental, genetic and behavioral attributes
- Addiction affects the circuitry of the brain in many ways involving reward, memory, learning, motivation, motor activity and the ability to inhibit behavior craving and loss of control
- Addiction is NOT moral failing, lack of self-control or weakness. Some of the resulting behaviors of addiction may include:
  - Substance use in larger amounts or over a longer period than intended
  - Persistent desire for the drug or unsuccessful efforts to cut down or control use of the drug
  - Craving, or a strong desire or urge to use the substance
  - Failure to fulfill major role obligations at work, school, or home
  - Continuance despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance

Substance Use Disorder is a cluster of cognitive, behavioral, and physiological symptoms indicating the continued use of a substance, despite significant substance-related problems. Overall, the diagnosis of a substance use disorder is based on a pathological pattern of behaviors related to the use of a substance. Substance use disorder is the umbrella term for the misuse of tobacco, alcohol, and legal and illicit drugs. It encompasses everything from a mild misuse to a severe state of chronically relapsing, compulsive drug taking. The substance use disorder diagnosis covers a broader range of misuse than addiction alone.

Physical Dependence occurs when abruptly stopping the drug leads to withdrawal symptoms. Physical dependence often occurs with medications being misused, but it also can occur with medications taken in a prescribed way for a medical condition.

Tolerance is a physiological need for a higher drug dose to attain the same effect. It is common in addiction and dependence.

Withdrawal is the presence of discomfort, distress, and intense craving for a substance when use of the substance is abruptly stopped. These symptoms occur because the body has become physiologically adapted to the substance. The withdrawal symptoms can range from mild discomfort resembling the flu to severe withdrawal that can be life threatening. While withdrawal can occur with many substances, the most pronounced withdrawal syndrome occurs with opioids, benzodiazepines, and alcohol. Withdrawal symptoms are varied and can include gastrointestinal, integumentary, musculoskeletal, neurologic, and respiratory problems. Effective medications exist for many substances to safely manage withdrawal in the short and long term, and to prevent relapse to unhealthy substance use. Opiate withdrawal is measured with the Clinical Opiate Withdrawal Scale (COWS).

Withdrawal Management/ Detoxification is the procedure by which one attempts to eliminate the substance entirely from the body. Detoxification may take place in an inpatient setting or in a closely supervised outpatient setting, and should only be attempted under medical supervision by specially trained personnel. The patient must be medically evaluated to participate. Many patients have prolonged withdrawal symptoms even after detoxification.
has been achieved. Because of this and because of the risk of resumption of drug use, detoxification should be followed by structured substance use disorder treatment or long term supportive therapy.

Medication Assisted Treatment (MAT) is the use of FDA approved medication for the treatment of opiate/opioid addiction and substance abuse (methadone or buprenorphine).

Maintenance Therapy is the regular administration of an opioid agonist medication (methadone or buprenorphine) to treat opioid addiction or dependence. The medication is administered at a steady dose sufficient to suppress withdrawal symptoms and drug cravings, but allows alertness and active participation in activities of daily living.

Transition is assisting a patient in transitioning from illicit drug use to MAT to lessen withdrawal symptoms with ultimate goals of maintenance which will be completed at an outpatient clinic.

Recovery from substance use disorder is the process of change through which individuals improve their health and wellness, live self-directed lives, and try to reach their potential.

Methadone
- Opiate agonist fully activates opioid receptors
- MAT with methadone is the STANDARD OF CARE for the opiate addicted pregnant patient to minimize withdrawal, prevent relapse and improve outcomes
- Since the 1970s methadone has been the standard treatment of heroin addiction during pregnancy
- Outpatient methadone maintenance prescribed and dispensed daily by federally licensed/registered treatment center
- Minimizes peak and trough maternal opioid levels reducing fetal exposure to repeated intoxication and withdrawal
- OK in breastfeeding

Buprenorphine
- Opioid partial agonist activates opioid receptors but produces a diminished response even with full occupancy – meaning like opioids, it produces effects such as euphoria or respiratory depression; however, these effects are weaker than those of full drugs such as heroin and methadone
- Buprenorphine with naloxone = suboxone, butrans, zubsolv, bunavail
- Buprenorphine without naloxone = subutex, buprenex
- The single agent product subutex is recommended during pregnancy to avoid any potential prenatal exposure to naloxone
Neonatal Abstinence Syndrome (NAS)

- NAS refers to a collection of syndromes that infants can display if their mother takes a drug that causes dependency. The baby gets that drug during the pregnancy, and once the cord is cut, the drug supply is cut off and the baby may have withdrawal symptoms,” said Jacquelyn J. Starer, MD, FASAM, ABAM Diplomate.
- Dysregulation in central, autonomic and GI system functioning (Finnegan 1991)
- CNS features include high-pitched cry, reduced quality and length of sleep, increased muscle tone, tremors, convulsions
- Autonomic features include yawning, sweating, sneezing, increased respiratory rate
- GI features include excessive sucking, poor feeding, regurgitation or vomiting, loose stools
- Usually starts within 24 hours after birth (heroin) to 72 hours after birth (methadone and buprenorphine), but may be delayed up to 5 to 7 days in some infants
- The term ‘NAS’ implies that it is an opioid withdrawal syndrome, but many substances can cause NAS, including sedatives, barbiturates, nicotine, alcohol, and even SSRIs. The biggest epidemic now is opioid use,” said Dr. Starer, Associate Director, Physician Health Services, Waltham, Massachusetts.

Medication Assisted Treatment for Opiate Dependence:

- Provides methadone maintenance under the supervision of a physician and dispensed by nursing staff.
- Requires daily attendance until the patient is stabilized.
- Provides individual, group, and family counseling and education.
- May include psychiatric interventions and referrals to ancillary services.
- Must be provided at a state licensed clinic.

Fetal Alcohol Spectrum Disorder

Consumption of alcohol during pregnancy is the leading preventable cause of intellectual disability in children. Studies attempting to determine whether any degree of alcohol consumption during pregnancy is safe are unclear. Current thinking is that some people have a genetic sensitivity to the effects of alcohol on their fetus and, for them; no amount of alcohol would be safe. For others, a rare drink is probably ok. However, since medical science has not yet developed a method to determine who is especially sensitive to alcohol, the best advice is for the pregnant woman to avoid all alcohol for the duration of her pregnancy (and preferably from the time she begins to try to conceive). Otherwise, her baby is at risk for developing Fetal Alcohol Spectrum Disorder.

Fetal alcohol spectrum disorder (FASD) is a non-diagnostic term. It describes the broad range of adverse sequelae from maternal alcohol consumption during pregnancy that can be seen in prenatally exposed offspring. FASD includes fetal alcohol syndrome (FAS), partial fetal alcohol syndrome (pFAS), alcohol-related birth defects (ARBD), and alcohol-related neurodevelopmental disorder (ARND). These are described below. Note: prenatal alcohol exposure may or may not be confirmed in making the diagnosis.
Fetal Alcohol Syndrome (FAS) is defined by abnormalities in three domains:

- **Poor Prenatal and/or Postnatal Growth** - Growth retardation is defined as confirmed prenatal or postnatal height and/or weight at or below the tenth percentile for age. Poor growth due to intrauterine alcohol exposure tends to continue through infancy and childhood.

- **Central Nervous System (CNS) Abnormalities** - Prenatal exposure to alcohol causes impaired brain growth and/or abnormal development that result in a wide range of neurobehavioral problems including impairment of self-regulation, cognition, and adaptive functioning. Imaging and neurobehavioral studies indicate that there are particular vulnerable regions of the brain including the frontal cortex, corpus callosum, hippocampus, cerebellum, and basal ganglia. These areas control impulse control and judgment, transference of information between the hemispheres, memory and learning, coordination of movement, and behaviors such as the ability to make transitions, work toward goals, and perceive time.

- **Specific Dysmorphic Facial Features** - Abnormalities seen include short palpebral fissures, smooth philtrum, and thin upper lip.

**Partial Fetal Alcohol Syndrome (pFAS)**
These children have a confirmed history of exposure to significant levels of alcohol during pregnancy but do not meet all of the criteria to qualify for a FAS diagnosis. They have some of the neurobehavioral deficits seen in FAS.

**Alcohol-Related Birth Defects (ARBD)**
These children have one or more congenital defects associated with prenatal exposure to alcohol that include dysplastic kidneys, ptosis, atrial and ventricular septal defects, and neurosensory loss. For this diagnosis, confirmation of prenatal alcohol exposure is required.

**Alcohol-Related Neurodevelopmental Disorder (ARND)**
These children have normal growth and lack the facial stigmata of FASD, but display a pattern of behavioral, developmental and/or cognitive problems that are inconsistent with the developmental level of the individual and cannot be explained by the genetic contribution of the biological parents or abnormalities in brain maturation related to toxic environmental factors. For this diagnosis, confirmation of prenatal alcohol exposure is required.

Early diagnosis of children with neurodevelopmental problems related to FASD is essential so that affected children can be placed in appropriate therapies and/or educational programs. Early intervention may ameliorate primary effects such as language problems and emotional dysregulation, and prevent secondary effects such as academic, legal, and psychiatric problems.
The Clinical Opiate Withdrawal Scale (COWS)

The Clinical Opiate Withdrawal Scale (COWS) is an 11-item scale designed to be administered by a clinician. This tool can be used in both inpatient and outpatient settings to reproducibly rate common signs and symptoms of opiate withdrawal and monitor these symptoms over time. The summed score for the complete scale can be used to help clinicians determine the stage or severity of opiate withdrawal and assess the level of physical dependence on opioids. Practitioners sometimes express concern about the objectivity of the items in the COWS; however, the symptoms of opioid withdrawal have been likened to a severe influenza infection (e.g., nausea, vomiting, sweating, joint aches, agitation, tremor), and patients should not exceed the lowest score in most categories without exhibiting some observable sign or symptom of withdrawal.

Clinical Opiate Withdrawal Scale (COWS)

For each item, record the number that best describes the patient’s signs or symptom.

**Resting Pulse Rate: (record beats per minute)**

Measured after patient is sitting or lying down for one minute

0 pulse rate 80 or below
1 pulse rate 81–100
2 pulse rate 101–120
4 pulse rate greater than 120

**Sweating: over past ½ hour not accounted for by room temperature or patient activity**

0 no report of chills or flushing
1 subjective report of chills or flushing
2 flushed or observable moistness on face
3 beads of sweat on brow or face
4 sweat streaming off face

**Restlessness: observation during assessment**

0 able to sit still
1 reports difficulty sitting still, but is able to do so
3 frequent shifting or extraneous movement of legs/arms
5 unable to sit still for more than a few seconds

**Pupil size**

0 pupils pinned or normal size for room light
1 pupils possibly larger than normal for room light
2 pupils moderately dilated
5 pupils so dilated that only the rim of the iris is visible

**Bone or joint aches: if patient was having pain previously, only the additional component attributed to opiate withdrawal is scored**
0 not present
1 mild/diffuse discomfort
2 patient reports severe diffuse aching of joints/muscles
4 patient is rubbing joints or muscles and is unable to sit still because of discomfort

**Runny nose or tearing: not accounted for by cold symptoms or allergy**
0 none present
1 nasal stuffiness or unusually moist eyes
2 nose running or tearing
4 nose constantly running or tears streaming down cheeks

**GI upset: over last ½ hour**
0 no GI symptoms
1 stomach cramps
2 nausea or loose stool
3 vomiting or diarrhea
5 multiple episodes of diarrhea or vomiting

**Tremor: observation of outstretched hands**
0 no tremor
1 tremor can be felt, but not observed
2 slight tremor observable
4 gross tremor or muscle twitching
**Yawning: observation during assessment**

0 no yawning
1 yawning once or twice during assessment
2 yawning three or more times during assessment
4 yawning several times/minute

**Anxiety or irritability**

0 none
1 patient reports increasing irritability or anxiousness
2 patient obviously irritable or anxious
4 patient so irritable or anxious that participation in the assessment is difficult

**Gooseflesh skin**

0 skin is smooth
3 piloerection of skin can be felt or hairs standing up on arms
5 prominent piloerection

**Scoring the Clinical Opiate Withdrawal Scale (COWS)**

**Score:**

5 to 12 = mild
13 to 24 = moderate
25 to 36 = moderately severe
More than 36 = severe withdrawal
Edinburgh Postnatal Depression Scale Instructions

1. The mother is asked to circle the response which comes closest to how she has been feeling in the previous 7 days.

2. All 10 items must be completed.

3. Care should be taken to avoid the possibility of the mother discussing her answers with others.

4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.

Scoring

A score of 10 may require assessment, as depression symptoms may be present.
A score of 12 indicates that depression is likely and further assessment by a trained healthcare provider is recommended.
If any number other than “0” is circled for an item number 10, further assessment and possible referral is required immediately.
Edinburgh Postnatal Depression Scale

Name: ____________________________________ Today's Date: ____________________________

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please circle the answer that comes closest to how you have felt in the past 7 days

1. I have been able to laugh and see the funny side of things
   0. As much as I always could
   1. Not quite so much now
   2. Not so much now
   3. Not at all

2. I have looked forward with enjoyment to things
   0. As much as I ever did
   1. Somewhat less than I used to
   2. A lot less than I used to
   3. Hardly at all

3. I have blamed myself unnecessarily when things went wrong
   0. No, not at all
   1. Hardly ever
   2. Yes, sometimes
   3. Yes, very often

4. I have been anxious or worried for no good reason
   0. Yes, often
   1. Yes, sometimes
   2. No, not much
   3. No, not at all

5. I have felt scared or panicky for no very good reason
   0. Yes, often
   1. Yes, sometimes
   2. No, not much
   3. No, not at all
6. Things have been too much for me
   0. Yes, most of the time I haven’t been able to cope at all
   1. Yes, sometimes I haven’t been coping as well as usual
   2. No, most of the time I have coped well
   3. No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping
   0. Yes, most of the time
   1. Yes, sometimes
   2. Not very often
   3. No, not at all

8. I have felt sad or miserable
   0. Yes, most of the time
   1. Yes, quite often
   2. Not very often
   3. No, not at all

9. I have been so unhappy that I have been crying
   0. Yes, most of the time
   1. Yes, quite often
   2. Only occasionally
   3. No, never

10. The thought of harming myself has occurred to me
    0. Yes, quite often
    1. Sometimes
    2. Hardly ever
    3. Never
Screening and Intervention for Opiate Use in Obstetric Patient in Outpatient Clinic/ MD Office

Screen should be done at initial intake or first obstetrical visit
Screening Tool Options: Replace with something more generic- this is from Women’s Hospital

Negative Screen

Reinforce Positive Decisions
Potential Script:
- “I am glad to see that you are not using medications or drugs not cleared by me.”
- “That is important because opiates such as pain pills and heroin use can cause increased risks to your unborn baby.”
- “Please continue to avoid these substances.”
- “Check with me before taking any medications not prescribed by me.”

Positive Screen

Potential Script:
- “I am concerned about your use of opioids/narcotics because of the risk to your health and to your baby’s health.”
- “It is important that we talk about this because there are options for you and your baby to be healthy and decrease risks and complications, like drug withdrawal for the baby and difficulty with self-regulation for months afterwards.”
- “Is this something you are concerned about too?”
- “Do you think this is something that you can change?”
- “These drugs can be hard for many people just to give up. Do you need some help with addressing this problem?”
- “Would you like some information?”

Yes

Potential Script:
- “First we need to assess your immediate medical needs, then we can develop a plan together.”

No

Potential Script:
- “Ok, but it is important that at every visit we talk about it and I check on your unborn baby’s health.”

Patient appears “high” on drugs: Acute Opiate Intoxification
- Pupillary miosis
- Slowed respirations
- Slowed movements
- Tranquility, sedations “on the nod”

Give Referral Resources & Patient Education Material

Evaluate with Clinical Opiate Withdrawal Scale (COWS)
Dealing with Victims of Intimate Partner Violence

Possible Indicators for Intimate Partner Violence:

- Injuries in areas usually covered by clothing;
- Injuries that do not correspond to the medical history (i.e. falling down stairs and suffering from two black eyes);
- Cuts, bumps, bruises, scratches, etc., that would indicate the use of force;
- Poor compliance with follow-up;
- Evidence of untreated or old injuries or a substantial delay between the incidents and treatment of the injury;
- Repeated or multiple injuries that are difficult to account for as accidental (i.e. injuries on more than one part of the body or bilateral injuries);
- Facial injuries, strangulation marks, symmetrical injuries, injuries at various stages of healing;
- Changed or fearful behavior around partner;
- Partner hovers and doesn’t want patient to be alone with healthcare provider;
- Strokes in younger women; often caused by blows to the head or damage to the neck arteries due to strangulation;
- Frightened, disoriented or depressed over a minor injury or minimizing the importance of a major injury;
- Repeated visits to physicians’ offices, emergency rooms or medical clinics for vague complaints, acute anxiety or chronic pain with no reported injuries;
- Hesitancy, embarrassment, evasiveness or fearfulness about circumstances surrounding accidents (history of being “accident prone”);
- Recurring vaginal infections or injuries indicating possible sexual abuse.
- Soft tissue injuries to the back, abdomen, (especially true for pregnant women), throat, buttocks, head and breasts;
- Suicide attempts, homicide assaults or self-destructive behaviors; and
- Substance abuse, eating or sleeping disorders and/or depression.

Helpful Approaches

- In addition to your health problems, we are also asking all patients about the possibility of abuse since abuse and violence are common.
- Since violence is so common, I’ve started asking all of my patients about it. “Are you safe at home?”
- Many times when I see patients with injuries like yours, it means someone has tried to hurt them. Has someone tried to hurt you?
- Interview the patient at some point by herself away from anyone else behind a closed door. If assessment leads to suspicions of abuse, you may ask, “It looks like someone hurt you…”
  - “Has this happened before?”
  - “When did it first happen?”
  - “How badly have you been hurt in the past?”
- Document full assessment using “partner violence”, or “domestic violence”, or “intimate partner violence” when appropriate.
Some comments to be avoided:

- Do not make judgmental comments or questions. Example: “I can’t believe you put up with this, why don’t you just leave?”
- Do not use the terms “battered”, “abused”, “domestic violence” – patient probably won’t see herself as such, but may perceive you as judgmental.
- Do not ask questions re: violence in presence of the partner or other family members.
- Do not break confidentiality.
- Do not give information to patient with identifying information unless patient requests or consents (i.e. brochures or other written information that contains identifying information, which would alert abuser).

**Intimate Partner Violence Associated with Substance Use**

Women who have experienced intimate partner violence (IPV) are more likely to use alcohol and drugs than women who have not been abused. Two out of every three women in substance use treatment reported IPV victimization in the pretreatment year. Therefore, signs of substance use (as well as signs of mental health problems, or new or recurrent STIs) should prompt an assessment for IPV. The American Congress of Obstetricians and Gynecologists (ACOG) recommends that screening be done at the first prenatal visit, at least once per trimester, and at the postpartum checkup.

**Definitions**

Intimate partner violence encompasses subjection of a partner to physical abuse, psychological abuse, sexual violence, and reproductive coercion:

- Physical abuse can include throwing objects, pushing, kicking, biting, slapping, strangling, hitting, beating, threatening with any form of weapon, or using a weapon.
- Psychological abuse erodes a woman’s sense of self-worth and can include harassment, verbal abuse (such as name calling, degradation, and blaming; threats; stalking; and isolation). Often, the abuser progressively isolates the woman from family and friends and may deprive her of food, money, transportation, and access to health care.
- Sexual violence includes a continuum of sexual activity that covers unwanted kissing, touching, or fondling; sexual coercion; and rape.
- Reproductive coercion involves behavior used to maintain power and control in a relationship related to reproductive health and can occur in the absence of physical or sexual violence. A partner may sabotage efforts at contraception, refuse to practice safe sex, intentionally expose a partner to a STI/HIV, forbid sterilization, abortion, or access to other reproductive health services. Nearly 20% of women seeking care in family planning clinics who had a history of abuse also experienced pregnancy coercion and 15% reported birth control sabotage.

**Important principles:**

1. Safety of the victims and their children is a priority;
2. The victim’s life choices are respected;
3. The need for health care provider response to intimate partner violence is acknowledged.
LEGAL RESPONSIBILITY
Louisiana law does not mandate reporting intimate partner violence. The police may be called at patient’s request, but cannot be notified without the patient’s written authorization. Only the abused person can assess the danger and relative risk of reporting vs. non-reporting. The protected health information (PHI) disclosed must be the minimum amount necessary to accomplish the intended purpose.

HUMAN TRAFFICKING
It is unlawful for any person to recruit, harbor, transport, provide, solicit obtain, or maintain the use of another person through fraud, force or coercion to provide services, labor or commercial sexual activity. If human trafficking is suspected, the patient should be offered the opportunity to contact law enforcement personnel. She should be also given the contact information for the National Human Trafficking Resource Center Hotline – 1-888-373-7888.

Training/Webinars:

SBIRT training:
http://www.sbirttraining.com/SBIRT-Core

Motivational Interviewing:
http://www.sbirttraining.com/miprogram
http://pcssmat.org/new-pcss-mat-online-module-with-free-cme-posted-motivational-interviewing/

Opioid Dependence in Pregnancy: Clinical Challenges:

Substance Use Screening and Reproductive Education and Counseling for Substance Using Women of Child-bearing Age:
Brochures:

**Pregnancy: Methadone and Buprenorphine:**

**Childbirth, Breastfeeding and Infant Care: Methadone and Buprenorphine:**

Additional Readings:

**DSM-V Criteria for opioid use disorder:**

**SAMHSA’s Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs a Treatment Improvement Protocol Tip 43:**
See attached chapter 13

**ASAM National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use – part 8 special populations: pregnant women:**
See attached part 8
ABSTRACT

Substance abuse during pregnancy is a major problem with many adverse maternal, fetal, and neonatal effects. Increased learning and use of best practices found in the NAS Educational Resource Library by providers, behavioral health professionals, and agencies can help improve substance use disorders, NAS outcomes and strengthen the ability to improve treatment and prevention.

Early Identification and Screening of NAS Risk Sub-Committee

Medicaid Innovation Accelerator Program for Substance Use Disorders, (IAP-SUD) NAS
NAS Educational Resource Library for Pregnant Women
Alcohol, Substance and Tobacco Use and Mental Health

**FLYERS/FACT SHEETS**


**Screening, Brief Intervention, and Referral to Treatment, (SBIRT) Fact Sheet.** The Medicare Learning Network® (MLN), a registered trademark of CMS, is the brand name for official CMS educational products and information for Medicare Fee-For-Service Providers. For additional information, visit the MLN’s web page at http://www.cms.gov/MLNGenInfo on the CMS website. This fact sheet was current at the time it was published or uploaded onto the web. Medicare policy changes frequently so links to the source documents have been provided within the document for your reference.

Evidence-based practice used to identify, reduce, and prevent problematic use, abuse and dependence on alcohol and illicit drugs. SBIRT is an early intervention approach that targets those with nondependent substance use to provide effective strategies for intervention prior to the need for more extensive or specialized treatment.

**Incorporating Mental Health Screening Into Adolescent Office Visits | PHQ-9.** Source: Patient Health Questionnaire Modified for Teens (PHQ-9) (Author: Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke, and colleagues), PC/PHQ-9 Mod/6.4.10/1000, National Association of Community Health Centers; National Center for Mental Health Checkups at Columbia University, TeenScreen® Primary Care, To order more questionnaires, email: Mentalhealthcheckups@childpsych.columbia.edu, call (212) 265-4426 or visit www.teenscreen.org

**ARTICLES**


Aims: To determine the monitoring and treatment of neonatal abstinence syndrome (NAS) in neonatal intensive care units (NICUs) following opiate or polydrug exposure in utero.
### Management of Neonatal Abstinence Syndrome in the Newborn Nursery

In this review article, Artigas describes the short- and long-term effects of prenatal exposure to drugs. These effects can be profound, affecting neurobehavior, cognition, and language, or the impairments can be milder. Artigas points out the difficulty of separating the effects of drug exposure and the environmental influences in the home of the child whose mother took drugs during pregnancy.

### Neonatal Abstinence Syndrome__ Practice Essentials, Background, Pathophysiology

### Neonatal Abstinence Syndrome__ Clinical Presentation

### Neonatal Abstinence Syndrome__ Differential Diagnosis

### Neonatal Abstinence Syndrome__ Workup

### Neonatal Abstinence Syndrome__ Treatment & Management

### Neonatal Abstinence Syndrome__ Medication

### Neonatal Abstinence Syndrome__ Follow-up
Bibliography

• DiFranza JR, Lew RA. Morbidity and Mortality in Children Associated With the Use of Tobacco Products by Other People. Peds. 1996; 97 (4): 560-568. doi: 10.1016/S0196-0709(97)90020-X.
• Hale TW. Medications and Mother’s Milk. Amarillo, TX: Hale Publishing; 2008.
NOTES:


Urine Drug Screening Sources:

- Urine Drug Screening: A Valuable Office Procedure JOHN B. STANDRIDGE, MD, STEPHEN M. ADAMS, MD, and ALEXANDER P. ZOTOS, MD, University of Tennessee College of Medicine, Chattanooga, Tennessee.
- Health Partners Institute for Medical Education, Interpretation of Opiate Urine Drug Screen; http://www.imehealthpartners.com


**Breastfeeding Sources:**


