Screening, Assessing, and Treating Pregnant Women with Substance Use Disorder

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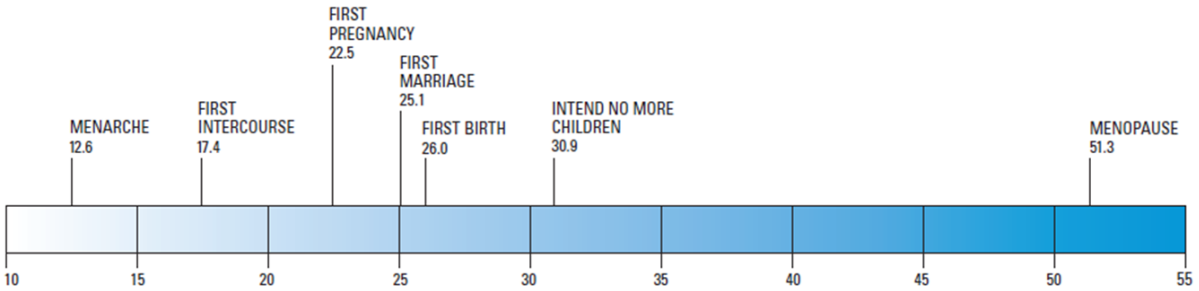
Disclosures

I have no relevant financial relationship to disclose or conflicts of interest to resolve.

Lifecourse

FIGURE 1.1

The typical woman spends five years pregnant, postpartum or trying to get pregnant and 30 years trying to avoid pregnancy.



Note *Age by which half of women have experienced event.
Source Reference 6.

“Crack Babies”: A Cautionary Tale

Crack Babies: The Worst Threat Is Mom Herself

By Douglas J. Besharov

LAST WEEK in this city, Greater Southeast Community Hospital released a 7-week-old baby to her homeless, drug-addicted mother even though the child was at severe risk of pulmonary arrest. The hospital's explanation: "Because [the mother], demanded that the baby be released."

The hospital provided the mother with an apnea monitor to warn her if the baby stopped breathing while asleep, and trained her in CPR. But on the very first night, the mother went out drinking and left the child at a friend's house—without the monitor. Within seven hours, the baby was dead. Like Dooney Waters, the 6-year-old living in his mother's drug den, whose shocking story was reported in The Washington Post last week, this child was all but abandoned by the authorities.

Washington Post 1989

The New York Times

Schools Trying to Cope With 'Crack Babies'

By Priscilla van Tassel
Jan. 5, 1992

JANE STEIN, a 29-year veteran of elementary school teaching, is seeing a different breed of pupils in her kindergarten class these days at the Joyce Kilmer School in Trenton.

"Their attention span is much shorter," she said. "It's very difficult for them to sit still for a long period of time. I guess you'd call it itchiness. They plain can't pay attention."

“The kids are coming to us damaged.”

Black Feminists Lead

Reproductive Justice Values:

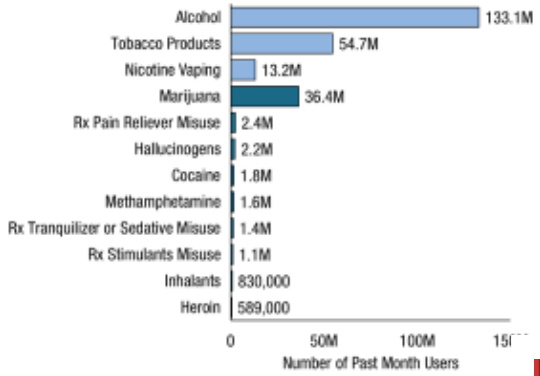
(1) The right to *not* have a child,
(2) the right to *have* a child, and
(3) the right to parent children in safe and healthy environments

(Loretta Ross 2017)

Why would a pregnant person use drugs?

FFR1.1

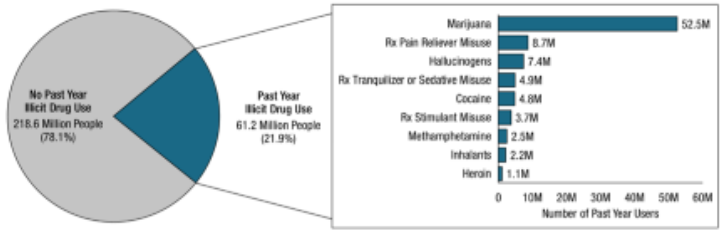
Past Month Substance Use: Among People Aged 12 or Older; 2021



Rx = prescription.
Note: The estimated numbers of current users of different substances are not mutually exclusive because people could have used more th

FFR1.14

Past Year Illicit Drug Use: Among People Aged 12 or Older; 2021



Rx = prescription.
Note: The estimated numbers of past year users of different illicit drugs are not mutually exclusive because people could have used more than one type of illicit drug in the past year.

SAMHSA

Not everyone who uses drugs becomes addicted

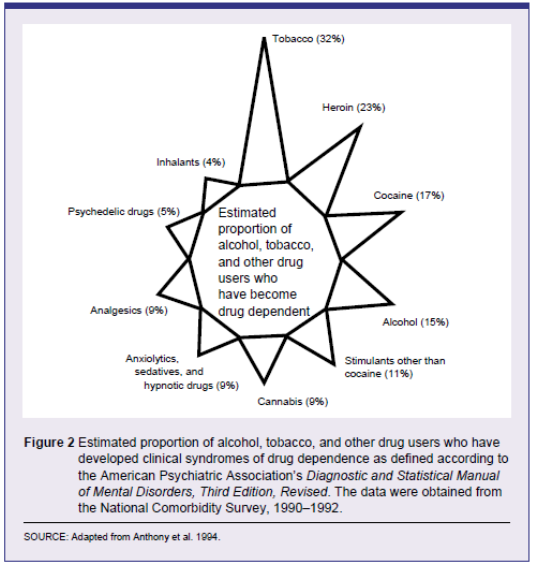
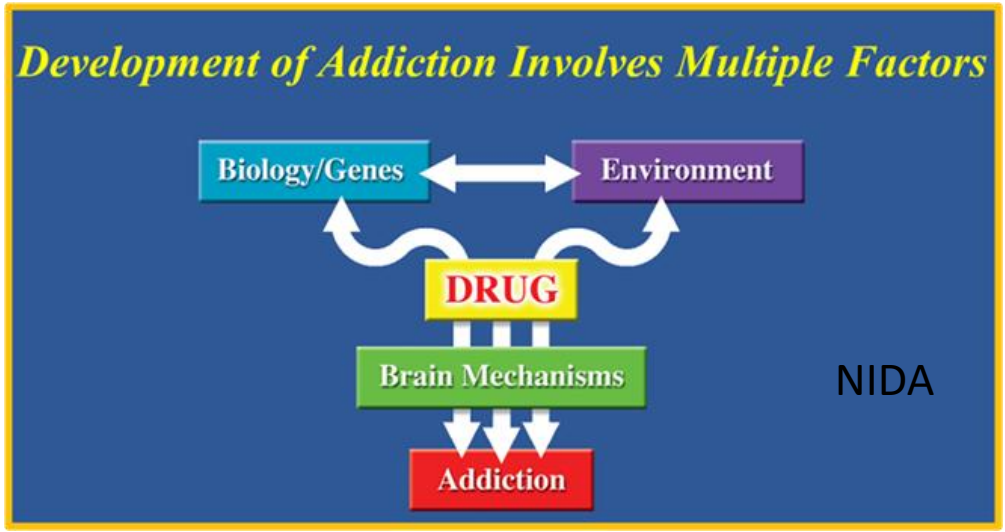


Figure 2 Estimated proportion of alcohol, tobacco, and other drug users who have developed clinical syndromes of drug dependence as defined according to the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised*. The data were obtained from the National Comorbidity Survey, 1990–1992.

SOURCE: Adapted from Anthony et al. 1994.



What is Addiction?

Definition:

Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.

Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases.

Adopted by the ASAM Board of Directors September 15, 2019

DSM-5 Substance Use Disorders

1. Tolerance[2]

2. Withdrawal[2]

Loss of Control

5. Increased time spent obtaining, using or recovering

6. Craving/Compulsion

Use Despite Negative Consequences

7. Role failure, work, home, school

8. Social, interpersonal problems

11. Physical or psychological harm

Addiction: A Brain-centered Condition Whose Visible Symptoms are Behaviors

[1] Mild (2-3), moderate (4-5), severe (≥6)

[2] Not valid if opioid taken as prescribed

APA. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.)

Addiction as Chronic Disease: Treatment Works

Drug Dependence, a Chronic Medical Illness

Implications for Treatment, Insurance, and Outcomes Evaluation

A. Thomas McLellan, PhD
David C. Lewis, MD
Charles P. O'Brien, MD, PhD
Herbert D. Kleber, MD

The effects of drug dependence on social systems has helped shape the generally held view that drug dependence is primarily a social problem, not a health problem. In turn, medical approaches to prevention and treatment are lacking. We examined evidence that drug (including alcohol) dependence is a chronic medical illness. A literature review compared the diagnoses, heritability, etiology (genetic and environmental factors), pathophysiology, and response to treatments (adherence and relapse) of drug dependence vs type 2 diabetes mellitus, hypertension, and asthma. Genetic heritability, personal choice, and environmental factors are comparably involved in the etiology and course of all of these disorders. Drug dependence produces significant and lasting changes in brain chemistry and function. Effective medications are available for treating nicotine, alcohol, and opiate dependence but not stimulant or marijuana dependence. Medication adherence and relapse rates are similar across these illnesses. Drug dependence generally has been treated as if it were an acute illness. Review results suggest that long-term care strategies of medication management and continued monitoring produce lasting benefits. Drug dependence should be insured, treated, and evaluated like other chronic illnesses.

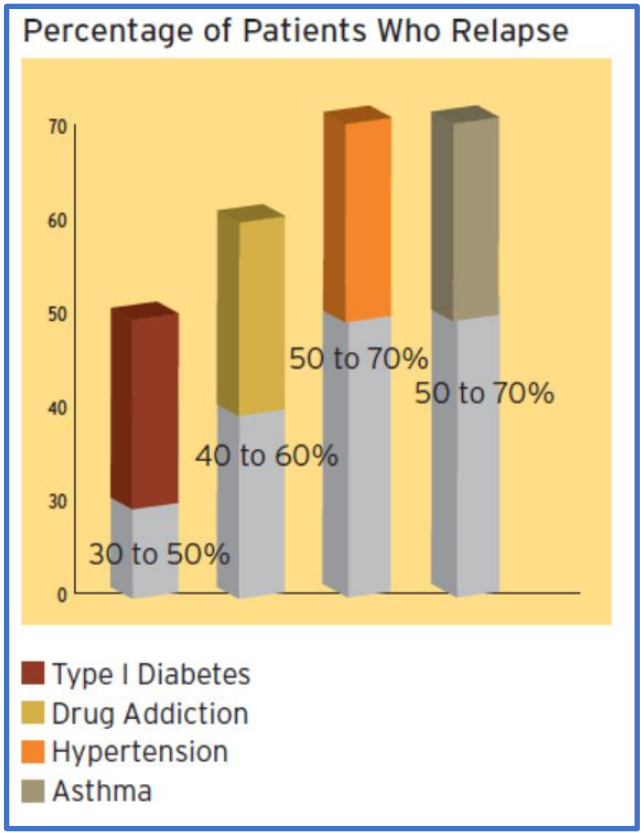
JAMA. 2000;284:1689-1695 www.jama.com

MANY EXPENSIVE AND DISturbing social problems can be traced directly to drug dependence. Recent studies[1-4] estimated that drug dependence costs the United States approximately $67 billion annually in crime, lost work productivity, foster care, and other social problems.[2-4] These expensive effects of drugs on all social systems have been important in shaping the public view that drug dependence is primarily a social problem that requires interdiction and law enforcement rather than a health problem that requires prevention and treatment.

This view is apparently shared by many physicians. Few medical schools or residency programs have an adequate required course in addiction. Most physicians fail to screen for alcohol or drug dependence during routine examinations.[5] Many health professionals view such screening efforts as a waste of time. A survey[6] of general practice physicians and nurses indicated that most believed no available medical or health care interventions would be "appropriate or effective in treating addiction." In fact, 40% to 60% of patients treated for alcohol or other drug dependence return to active substance use within a year following treatment discharge.[7,8] One implication is that these disappointing results confirm the suspicion that drug dependence is not a medical illness and thus is not significantly affected by health care interventions. Another possibility is that current treatment strategies and outcome expectations view drug dependence as a curable, acute condition. If drug dependence is more like a chronic illness, the appropriate standards for treatment and outcome expectations would be found among other chronic illnesses.

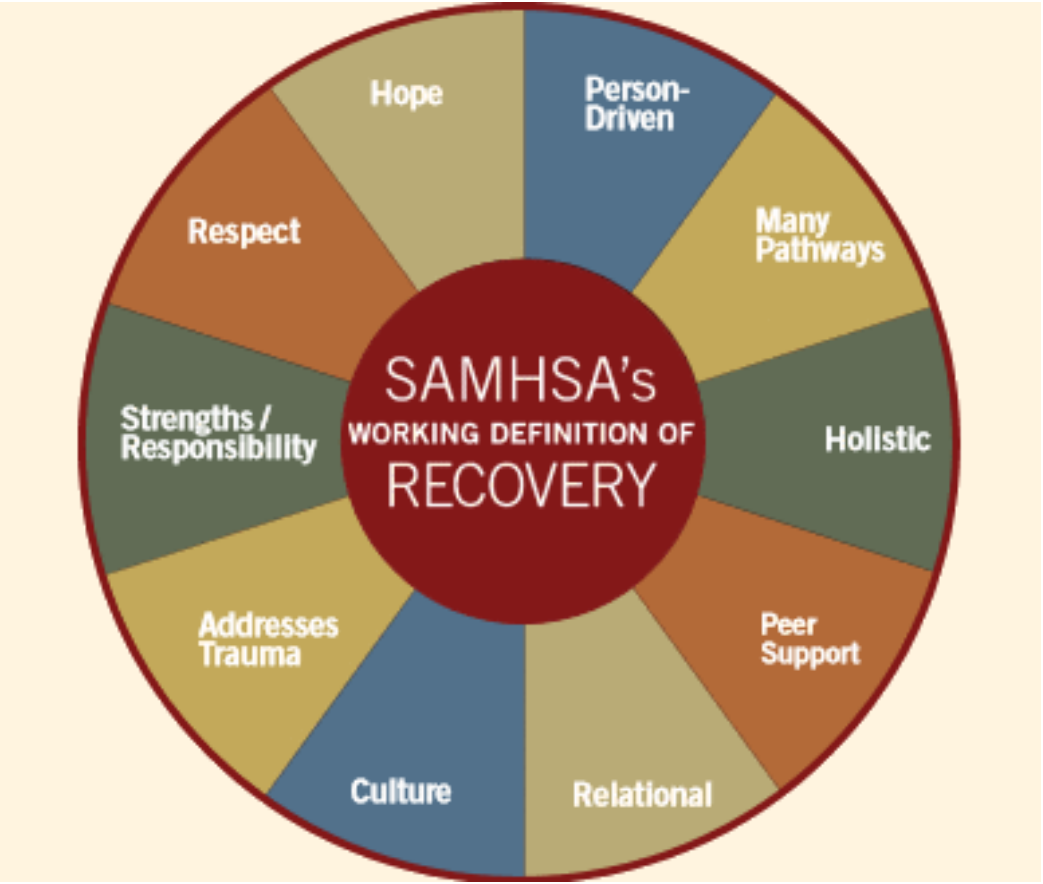
To explore this possibility, we undertook a literature review comparing drug dependence with 3 chronic illnesses: type 2 diabetes mellitus, hypertension, and asthma. These examples were selected because they have been well studied and are widely believed to have effective treatments, although they are not yet curable. Our review searched all English-language medical and health journals in MEDLINE from 1980 to the present using the following key words: *heritability, pathophysiology, diagnosis, course, treatment, compliance, ad-*

Author Affiliations: The Treatment Research Institute, Philadelphia, Pa (Dr McLellan); The Penn/VA Center for Studies of Addiction at the Veterans Affairs Medical Center and the University of Pennsylvania, Philadelphia (Drs McLellan and O'Brien); The Brown University Center for Alcohol and Addiction Studies, Providence, RI (Dr Lewis); and The National Center on Addiction and Substance Abuse at Columbia University, New York, NY (Dr Kleber).
Corresponding Author and Reprints: A. Thomas McLellan, PhD, The Treatment Research Institute, 150 S Independence Mall W, Suite 600, Philadelphia, PA 19106-3475 (e-mail: tmclellan@tresearch.org).

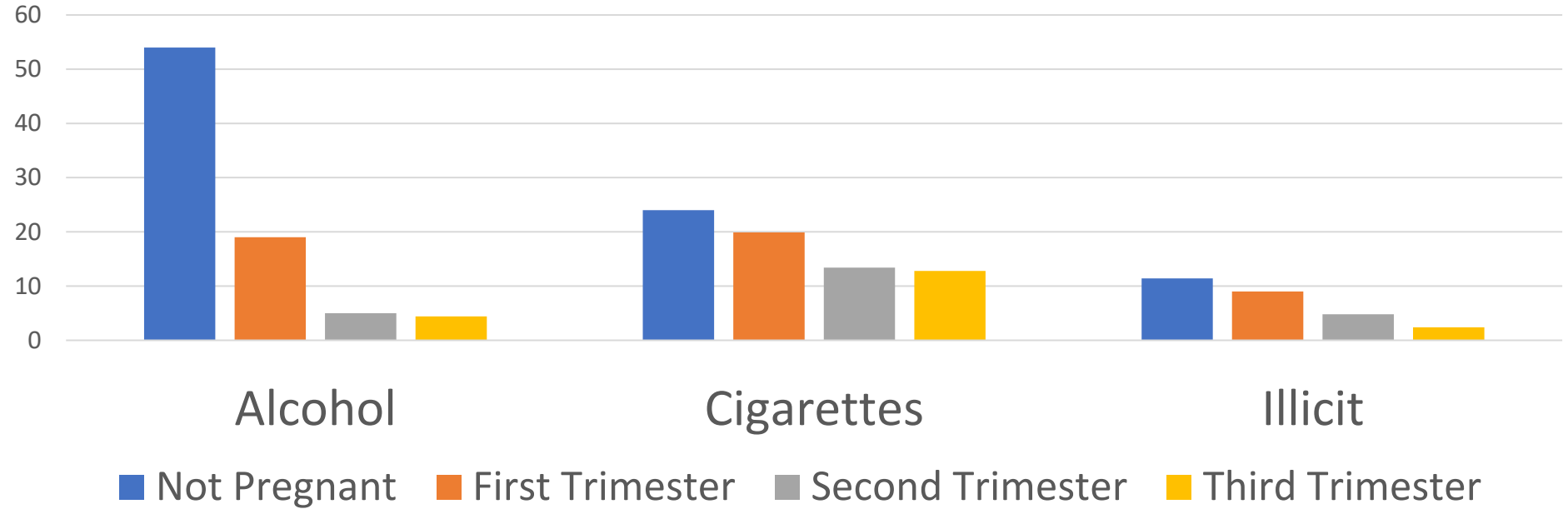


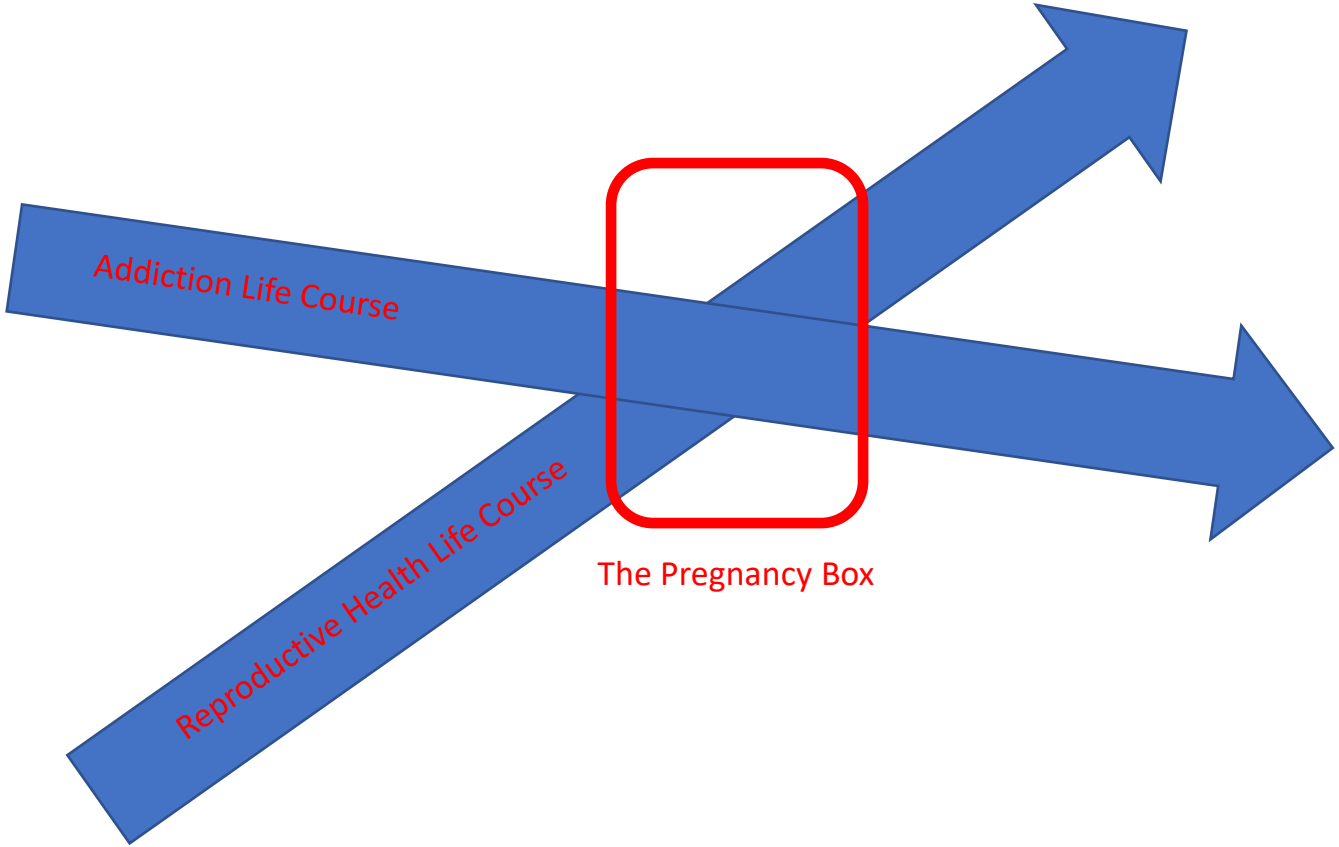
Recovery is the Goal of Treatment

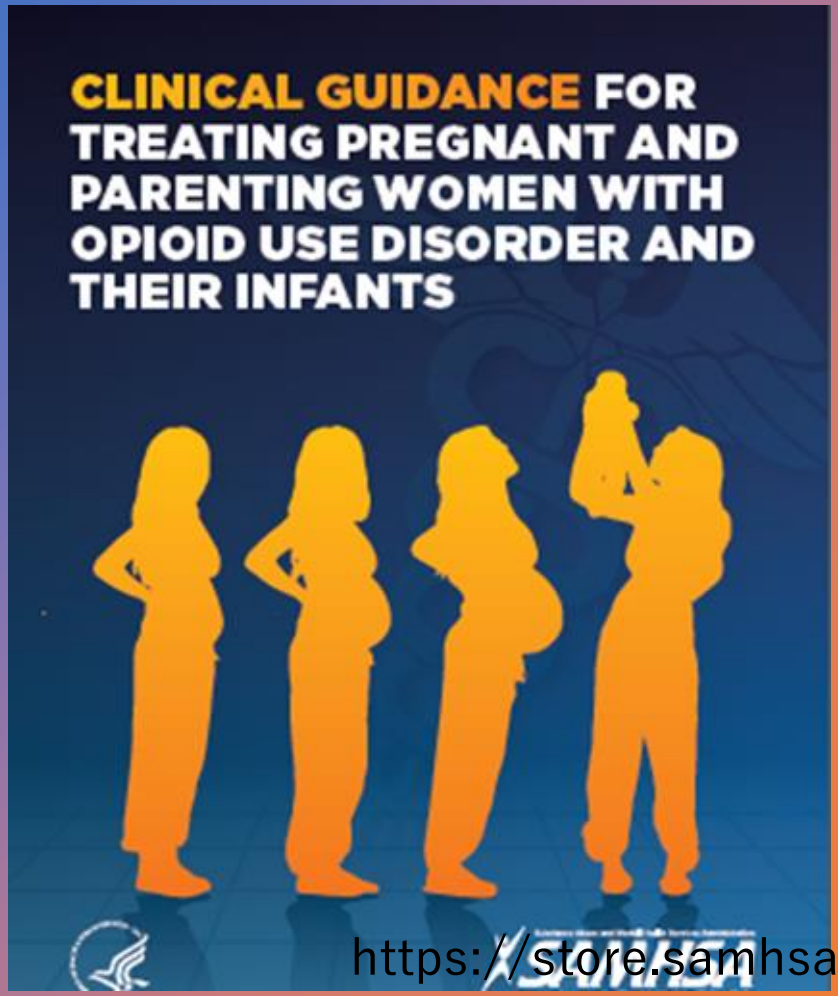
- More than abstinence
- Building a life of integrity
- Connection to others
- Purpose
- Serenity
- Fully compatible with the use of medications



What happens when people who use drugs get pregnant?




Addiction Life Course
Reproductive Health Life Course
The Pregnancy Box



Outline

- 1) Assessment (Screening and Testing)
- 2) Treatment
- 3) The 4th Trimester
- 4) Stigma and Discrimination

https://store.samhsa.gov/product/SMA18-5054

Assessment: Screening and Testing

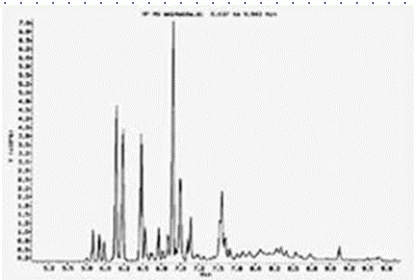
What is a Drug Test?

Presumptive

- Point-of-care
- Elisa
- Rapid and Cheap
- Results Binary

Definitive

- Gas Chromatography / Mass Spectrometry
- Costly and Timely
- Results specific and quantified



Presumptive Drug Tests: Poor Quality Information

TABLE 3. **Summary of Agents Contributing to Positive Results by Immunoassay[a]**

Substance tested via immunoassay	Potential agents causing false-positive result	Substance tested via immunoassay	Potential agents causing false-positive result
Alcohol[20]	Short-chain alcohols (eg, isopropyl alcohol)	Cannabinoids[1,8,83-88]	Dronabinol
			Efavirenz
Amphetamines[21-40]	Amantadine		Hemp-containing foods
	Benzphetamine		NSAIDs
	Bupropion		Proton pump inhibitors
	Chlorpromazine		Tolmetin
	Clobenzorex[b]	Cocaine[49-51]	Coca leaf tea
	l-Deprenyl[c]		Topical anesthetics containing cocaine
	Desipramine	Opioids, opiates, and heroin[8,14,52-63]	Dextromethorphan
	Dextroamphetamine		Diphenhydramine[e]
	Ephedrine		Heroin
	Fenproporex[b]		Opiates (codeine, hydromorphone, hydrocodone, morphine)
	Isometheptene		Poppy seeds
	Isoxsuprine		Quinine
	Labetalol		Quinolones
	MDMA		Rifampin
	Methamphetamine		Verapamil and metabolites[e]
	l-Methamphetamine (Vick's inhaler)[d]	Phencyclidine[8,52,64-70]	Dextromethorphan
	Methylphenidate		Diphenhydramine[e]
	Phentermine		Doxylamine
	Phenylephrine		Ibuprofen
	Phenylpropanolamine		Imipramine
	Promethazine		Ketamine
	Pseudoephedrine		Meperidine
	Ranitidine		Mesoridazine
	Ritodrine		Thioridazine
	Selegiline		Tramadol
	Thioridazine		Venlafaxine, O-desmethylvenlafaxine
	Trazodone	Tricyclic antidepressants[71-81]	Carbamazepine[f]
	Trimethobenzamide		Cyclobenzaprine
	Trimipramine		Cyproheptadine[f]
Benzodiazepines[34,41,42]	Oxaprozin		Diphenhydramine[f]
	Sertraline		Hydroxyzine[f]
			Quetiapine

TABLE 2. **Length of Time Drugs of Abuse Can Be Detected in Urine**

Drug	Time
Alcohol	7-12 h
Amphetamine	48 h
Methamphetamine	48 h
Barbiturate	
Short-acting (eg, pentobarbital)	24 h
Long-acting (eg, phenobarbital)	3 wk
Benzodiazepine	
Short-acting (eg, lorazepam)	3 d
Long-acting (eg, diazepam)	30 d
Cocaine metabolites	2-4 d
Marijuana	
Single use	3 d
Moderate use (4 times/wk)	5-7 d
Daily use	10-15 d
Long-term heavy smoker	>30 d
Opioids	
Codeine	48 h
Heroin (morphine)	48 h
Hydromorphone	2-4 d
Methadone	3 d
Morphine	48-72 h
Oxycodone	2-4 d
Propoxyphene	6-48 h
Phencyclidine	8 d

Data from references 7 through 12.

Moeller KE, Mayo Clinic Proc, 2008

False Positive, True Positive, and the Potential for Misinterpretation

BREASTFEEDING MEDICINE
Volume 11, Number 1, 2016
© Mary Ann Liebert, Inc.
DOI: 10.1089/bfm.2015.0173

Correspondence

Maternal Epidural Fentanyl Administered for Labor Analgesia Is Found in Neonatal Urine 24 Hours After Birth

Albert Moore, Aly el-Bahrawy, Roupen Hatzakorzian, and William Li-Pi-Shan

Dear Editor:

FENTANYL IS AN OPIOID MEDICATION that is given epidurally for labor analgesia. Although fentanyl is commonly used, there are reports of it interfering with breastfeeding success.[1] We could find no information on whether fentanyl would be found in a neonate more than 24 hours after delivery and so decided to present this case.

The patient gave consent, and the research ethics board gave approval for this study. A 34-year-old, 39-week gravida 1 para 0 woman presented in spontaneous labor. She was 162 cm tall, weighed 75 kg, was healthy, took no medication other than prenatal vitamins, and had enjoyed an uneventful pregnancy. She requested and received an epidural at 4:45 h the day of her admission. The epidural catheter placement was uncomplicated, and adequate analgesia was provided using a pump that infused 0.06% bupivacaine with 2 μg/mL fentanyl at 10 mL/hour with a patient-controlled 5-mL demand bolus and a lockout time of 10 minutes. Throughout her labor the patient received six extra boluses of this solution.

A 3,780-g baby boy was born at 14:08 h, with Apgar scores of 9 and 9 at 1 and 5 minutes, respectively, and an umbilical artery pH of 7.19. The epidural pump was stopped soon after birth, with the patient receiving 140 mL of the epidural solution (280 μg of fentanyl over 11 hours = 25 μg/hour). The patient recovered and was discharged to the postpartum ward where she was assessed by us the next day. At that time she had used no medications for pain.

The baby-dependent items on the LATCH score were assessed, and the latching ability and audible swallowing were rated at 2 (normal). Urine samples were collected from the mother at 14:00 h. At the same time, a clean sponge was placed in a new diaper, which provided a neonatal urine sample that was collected at 17:00 h. The samples were sent to a toxicology laboratory, where it was determined that the maternal urinary fentanyl level was 2.0 ng/mL, whereas the neonatal level was 2.4 ng/mL.

Although it is known that epidurally administered fentanyl crosses the placenta, it is thought that this leads to clinically unimportant levels in the neonate.[2] The measured half-life of fentanyl administered intravenously to infants 1 day or less of age is highly variable and ranges from 75 to 441 minutes,[3] making the duration it would remain in the neonate unclear. Our case demonstrates that fentanyl can persist in the neonate for at least 24 hours after delivery, at amounts that may have clinical effects. The minimum effective analgesic level of fentanyl in plasma for adults is 0.63 ng/mL.[4] Although the corresponding level is unknown in neonates, a level of 1.1 ng/mL has necessitated prolonged intubation in neonates.[5] The urinary concentration seems to have some correlation with fentanyl dosage and levels.[5]

Although fentanyl is transferred in breastmilk, it is virtually undetectable in colostrum 10 hours after it has been given maternally.[6] In addition, fentanyl's limited oral bioavailability makes us believe the majority of neonatal fentanyl was from placental transfer and not through breastmilk. Although our LATCH score was reported as normal, more subtle markers of breastfeeding difficulty may have been found if we had assessed the Widstrom stages of neonatal breastfeeding,[7] or more severe problems may have occurred if the patient had required higher fentanyl doses. Adequate initiation is essential for the continued success of breastfeeding, and it is possible that the presence of neonatal fentanyl could interfere in the important first days of life.

In conclusion, we provide evidence that fentanyl administered through an epidural for less than 12 hours will remain in the mother and neonate, even 24 hours after cessation of the epidural infusion. The clinical implications of this should be further investigated.

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Department of Anesthesia, Royal Victoria Hospital, Montreal, Quebec, Canada.

ELSEVIER

American Journal of Obstetrics and Gynecology

Available online 23 November 2022

In Press, Corrected Proof ⓘ What's this?

Original Research
Obstetrics

Fentanyl in the labor epidural impacts the results of intrapartum and postpartum maternal and neonatal toxicology tests

Molly R. Siegel MD [a], Grace K. Mahowald MD, PhD [b], Sacha N. Uljon MD, PhD [b], Kaitlyn James PhD [a], Lisa Leffert MD [c], Mackenzie W. Sullivan MD [a], Susan J. Hernandez CNM [a], Jessica R. Gray MD [d], Davida M. Schiff MD [e], Sarah N. Bernstein MD [a]

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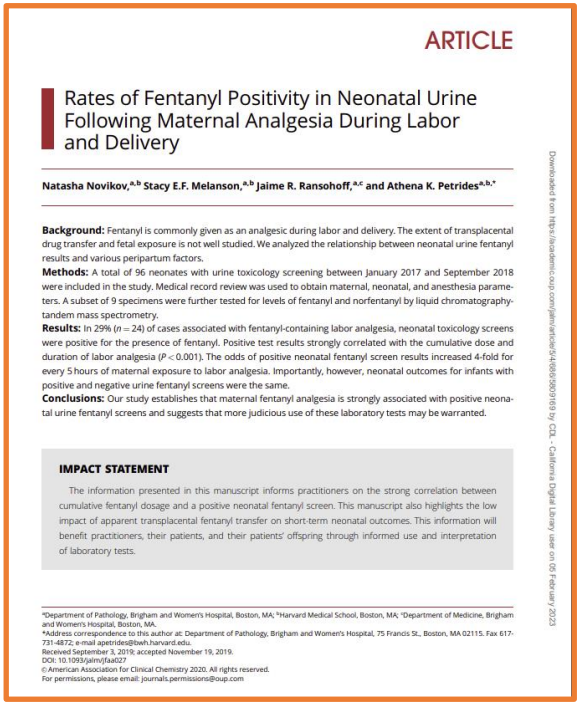
Background

A positive urine fentanyl toxicology test may have considerable consequences for peripartum individuals, yet the extent to which fentanyl administration in a labor epidural may lead to such a positive test is poorly characterized.



ARTICLE

Rates of Fentanyl Positivity in Neonatal Urine Following Maternal Analgesia During Labor and Delivery

Natasha Novikov,[a,b] Stacy E.F. Melanson,[a,b] Jaime R. Ransohoff,[a,c] and Athena K. Petrides[a,b,*]

Background: Fentanyl is commonly given as an analgesic during labor and delivery. The extent of transplacental drug transfer and fetal exposure is not well studied. We analyzed the relationship between neonatal urine fentanyl results and various peripartum factors.
Methods: A total of 96 neonates with urine toxicology screening between January 2017 and September 2018 were included in the study. Medical record review was used to obtain maternal, neonatal, and anesthesia parameters. A subset of 9 specimens were further tested for levels of fentanyl and norfentanyl by liquid chromatography-tandem mass spectrometry.
Results: In 29% ($n = 24$) of cases associated with fentanyl-containing labor analgesia, neonatal toxicology screens were positive for the presence of fentanyl. Positive test results strongly correlated with the cumulative dose and duration of labor analgesia ($P < 0.001$). The odds of positive neonatal fentanyl screen results increased 4-fold for every 5 hours of maternal exposure to labor analgesia. Importantly, however, neonatal outcomes for infants with positive and negative urine fentanyl screens were the same.
Conclusions: Our study establishes that maternal fentanyl analgesia is strongly associated with positive neonatal urine fentanyl screens and suggests that more judicious use of these laboratory tests may be warranted.

IMPACT STATEMENT

The information presented in this manuscript informs practitioners on the strong correlation between cumulative fentanyl dosage and a positive neonatal fentanyl screen. This manuscript also highlights the low impact of apparent transplacental fentanyl transfer on short-term neonatal outcomes. This information will benefit practitioners, their patients, and their patients' offspring through informed use and interpretation of laboratory tests.

[a]Department of Pathology, Brigham and Women's Hospital, Boston, MA; [b]Harvard Medical School, Boston, MA; [c]Department of Medicine, Brigham and Women's Hospital, Boston, MA.
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Received September 3, 2019; accepted November 19, 2019.
DOI: 10.1093/jalm/jfaa027

Drug Tests: Poor Quality Information that is Misinterpreted

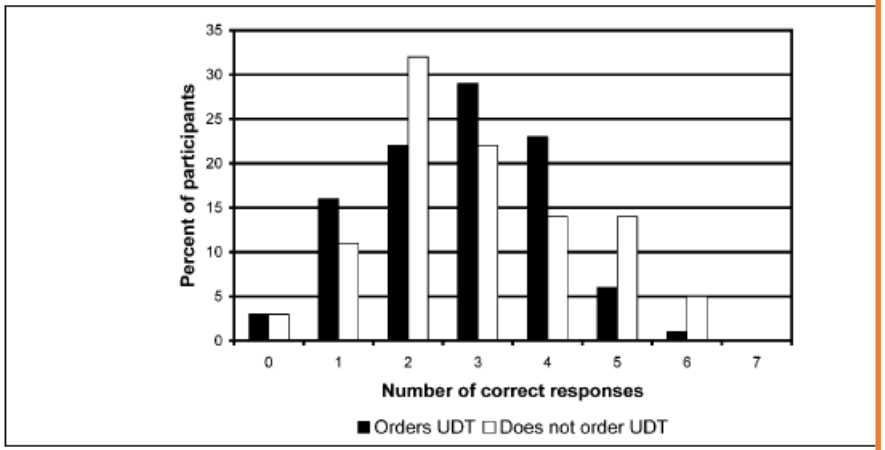

Figure 2.

APPENDIX. URINE DRUG TESTING (UDT) QUESTIONNAIRE: KNOWLEDGE QUESTIONS*

1. In a patient prescribed Tylenol #3 (codeine and acetaminophen), one would reasonably expect which of the following to be detected in the urine:
   a. codeine
   b. dihydrocodeine
   c. morphine
   d. all of the above
   e. a and c only

2. In a patient prescribed MS Contin (morphine), one would reasonably expect which of the following to be detected in the urine:
   a. codeine
   b. dihydrocodeine
   c. morphine
   d. all of the above
   e. a and c only

3. In a patient using heroin, one would be likely to detect which of the following in the urine:
   a. heroin
   b. hydromorphone
   c. morphine
   d. all of the above
   e. a and c only

4. A patient on OxyContin (oxycodone) therapy is administered a random urine drug test. He notifies you that he ate a large lemon poppy seed muffin for breakfast. What substances might reasonably be detected in the urine?
   a. oxycodone
   b. codeine
   c. morphine
   d. all of the above
   e. a and c only

5. A patient on chronic opioid therapy tests positive for cannabis on a random urine drug screen. She explains that her husband sometimes smokes pot in their bedroom. Is this a plausible explanation for the test findings?
   a. yes
   b. no

6. Which of the following are plausible explanations for a negative urine opiate drug screen in a patient on chronic opioid therapy:
   a. Patient ran out of opioid early and has not used any in a few days.
   b. Patient is a "fast metabolizer."
   c. Drug screen does not detect that particular opioid.
   d. a, b, and c
   e. a and c only

7. A patient on chronic Dilaudid (hydromorphone) therapy tests negative for opioids on a urine drug screen. The patient claims to be using the medicine as prescribed. The most appropriate next step would be to:
   a. subject this urine to a different type of test
   b. readminister a urine drug screen at the next visit
   c. taper and discontinue opioid therapy
   d. refer the patient to a detoxification/rehabilitation program
   e. notify law enforcement

* Correct responses are bolded.

CAPTA/CARA and Drug Testing

- Is a Positive Drug Test The Same as Being “Affected” by substance exposure?
- Does CAPTA Require Maternal Testing at Delivery?
- Does CAPTA Require Testing Newborns for Drug Exposure?

- **NO**
- CAPTA is it clear that a demonstrable health impact beyond a positive test is needed

Screening vs. Testing Professional Society Recommendations

Universal Screening:

Recommended (ACOG, ASAM, SMFM, AAP, SAMHSA, CDC)

- Voluntary (ACOG, SAMHSA, CDC)

Testing:

Not Recommended - Not an appropriate measurement of addiction (ACOG, ASAM, SAMHSA)

AAP: positive test = exposure, NOT indication of health or ill-health, not injury or harm, not mentioned in discharge criteria

ASAM: Definitive testing required “when the results of inform decisions with major clinical or non-clinical implications for the patient”

- Consent required (ACOG, ASAM, SMFM, SAMHSA)

Substance Use Disorder: *Original Research*

OPEN

Accuracy of Three Screening Tools for Prenatal Substance Use

Victoria H. Coleman-Cowger, PhD, Emmanuel A. Oga, MD, MPH, Erica N. Peters, PhD, Kathleen E. Trocin, MPH, Bartosz Koszowski, PharmD, PhD, and Katrina Mark, MD

OBJECTIVE: To compare and evaluate the accuracy of three screening tools in identifying illicit drug use and prescription drug misuse among a diverse sample of pregnant women.

METHODS: This prospective cross-sectional study enrolled a consecutive sample of 500 pregnant women, stratified by trimester, receiving care in two prenatal clinical settings in Baltimore, Maryland, from January 2017 to January 2018. All participants were administered three index tests: 4P's Plus, NIDA Quick Screen-ASSIST (Modified Alcohol, Smoking and Substance Involvement Screening Test), and the SURP-P (Substance Use Risk Profile-Pregnancy) scale, and administered reference tests (urine and line visit. To ass screening tool later by teleph specificity, pos value and test- were stratified

RESULTS: Of completed the reference testing, and 453 underwent test–retest analysis. For the 4P's Plus, sensitivity=90.2% (84.5, 93.8), and specificity=29.6% (24.4, 35.2). For the NIDA Quick Screen-ASSIST, sensitivity=79.7% (71.2, 84.2), and specificity=82.8% (78.1, 87.1). For the SURP-P, sensitivity=92.4% (87.6, 95.8) and specificity=21.8% (17.4, 27.2). Test–retest reliability (phi correlation coefficients) was 0.84, 0.77, and 0.79 for the 4P's Plus, NIDA Quick Screen-ASSIST and the SURP-P, respectively. For all screening tools, there were differences in validity indices by age and race, but no differences by trimester.

From the Battelle Memorial Institute and the University of Maryland Medical School, Baltimore, Maryland.

The research reported in this article was supported by the National Institute on Drug Abuse of the National Institutes of Health under Award Number R01DA041328 (PI-Coleman-Cowger). The content is solely the responsibility of the authors and does not represent the official views of the National Institutes of Health.

Each author has confirmed compliance with the journal's requirements for authorship.

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Financial Disclosure

The authors did not report any potential conflicts of interest.

ISSN: 0029-7844/19

lic health issue in the United States, with increasing illicit drug use observed among pregnant women from 2015 to 2017.[1] According to the 2016 National Survey on Drug Use and Health, self-reported past-month illicit drug use (inclusive of nonmedical use of prescription drugs) is 14.3% among pregnant adolescents ages 15–17 years, 10.1% among pregnant young adults (18–25 years), and 5.6% among pregnant adults (26–44 years).[2] These rates vary by trimester, with substance use typically decreasing over the course of pregnancy.[3] Substance use during pregnancy may lead to multiple health and social problems for both mother and child, including miscarriage, stillbirth, low birth weight, prematurity, physical malformations, and neurologic damage.[4]

The American College of Obstetricians and Gynecologists strongly recommends substance use screening for pregnant women,[5] and a 2012 expert panel convened by the Centers for Disease Control

ORIGINAL RESEARCH

Prenatal Practice Staff Perceptions of Three Substance Use Screening Tools for Pregnant Women

Kathleen E. Trocin, MPH, Nicole I. Weinstein, MSW, Emmanuel A. Oga, MD, MPH, Katrina S. Mark, MD, and Victoria H. Coleman-Cowger, PhD

Objective: There is a need to identify an acceptable and comprehensive substance use screening tool for pregnant women in the United States. This qualitative study sought to better understand prenatal practice staff perceptions of three existing substance use screening tools for use among pregnant women in an outpatient practice setting.

Methods: Eight focus groups with 40 total participants were conducted with clinical and administrative staff of 2 diverse Maryland prenatal practices to determine the acceptability and usability of 3 substance use screening tools (4P's Plus, NIDA-Modified Alcohol, Smoking and substance use screening and provides evidence that the 4P's Plus may be a preferred screening tool for standardized use in prenatal care.

Key Words: pregnancy, prenatal substance use, qualitative research, screening

(*J Addict Med* 2019;xx: xxx–xxx)

From the Battelle Memorial Institute (KET, NIW, EAG, VHC-C); Bureau of Primary Health Care/Office of Quality Improvement, Health Resources and Services Administration, Rockville, MD (KET); Center for Applied Public Health Research, RTI International, Rockville, MD (EAO); Department of Obstetrics, Gynecology and Reproductive Sciences, University of Maryland School of Medicine, Baltimore, MD (KSM, VHC-C); The Emmes Company, LLC, Rockville, MD (VHC-C).

Received for publication December 7, 2018; accepted March 18, 2019.

Funding: Research reported in this publication was supported by the National Institute on Drug Abuse of the National Institutes of Health under Award Number R01DA041328. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Health Resources and Services Administration.

The authors report no conflicts of interest.

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ISSN: 1932-0620/16/0000-0001

DOI: 10.1097/ADM.0000000000000543

Substance use during pregnancy is linked to negative health outcomes for both the mother and baby (Chang et al., 2017; NIDA, 2017). Despite these effects, many pregnant women in the United States use substances (Center for Behavioral Health Statistics and Quality et al., 2016). According to data from the 2016 National Survey on Drug Use and Health, 20% of pregnant women aged 15 to 44 years self-reported use of illicit drugs, tobacco products, or alcohol in the past month.

Screening is necessary to identify substance use during care. and their pre- can do ndard erican ongly preg- ening ntive Services Task Force (USPSTF), there is no screening tool for illicit drug use or prescription drug misuse that has been recommended for use with pregnant women (USPSTF, 2008; World Health Organization (WHO), 2014; ACOG, 2017).

There is a need to compare existing substance use screening tools to determine which is more accurate in identifying substance use among pregnant women in the United States, considered acceptable among their providers, and is easily integrated into prenatal care to increase substance use screening among this population. The quantitative portion of this study that compares and validates the accuracy of the 3 screening tools when compared with biologic testing is detailed elsewhere (Coleman-Cowger et al., 2018). The 3 screening tools utilized in this study—4P's Plus, NIDA Quick Screen/NIDA-Modified Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), and Substance Use Risk Profile-Pregnancy scale (SURP-P) (Table 1)—were chosen because they are brief and are the only ones listed by the WHO to have been validated (though the ASSIST had not been validated with a pregnant population; our quantitative study did this with results reported in Oga et al., in press elsewhere) and allow screening of multiple substances (Chasnoff et al., 2005; Humeniuk et al., 2008; Yonkers et al., 2010; World Health Organization [WHO], 2014). This study is intended to be a qualitative companion to the

Ask permission

"Is it OK if I ask you some questions about smoking, alcohol and other drugs?"

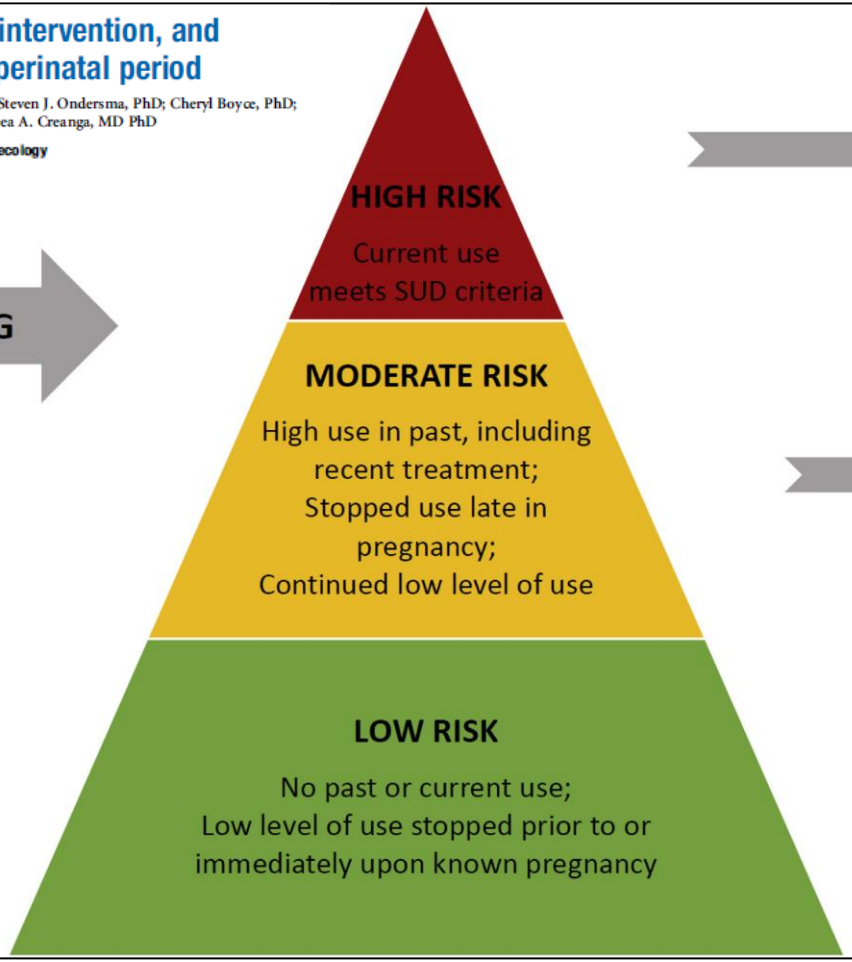
The role of screening, brief intervention, and referral to treatment in the perinatal period

Tricia E. Wright, MD, MS; Mishka Terplan, MD, MPH; Steven J. Ondersma, PhD; Cheryl Boyce, PhD; Kimberly Yonkers, MD; Grace Chang, MD, MPH; Andreea A. Creanga, MD PhD

NOVEMBER 2016 American Journal of Obstetrics & Gynecology

UNIVERSAL SCREENING

Brief questionnaire;
Interview;
Computer-assisted assessment



Refer to specialized SUD treatment;
Frequent follow-up visits w/ provider

Brief intervention;
Motivational interviewing;
Frequent follow-up visits w/provider

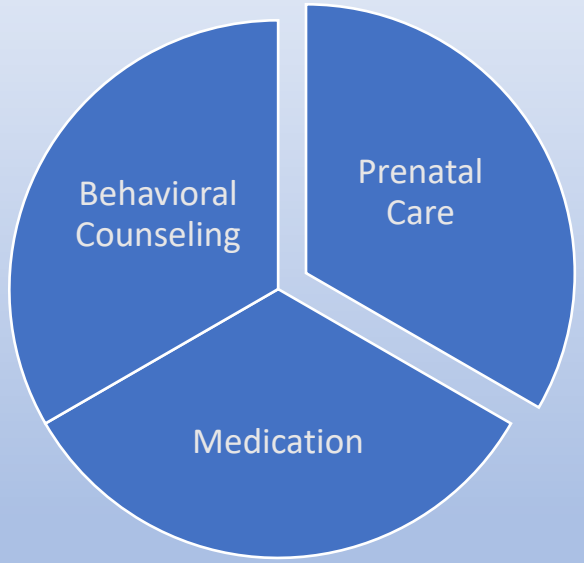
Brief advice
Written pamphlet

Summary: Assessment (Screening and Testing)

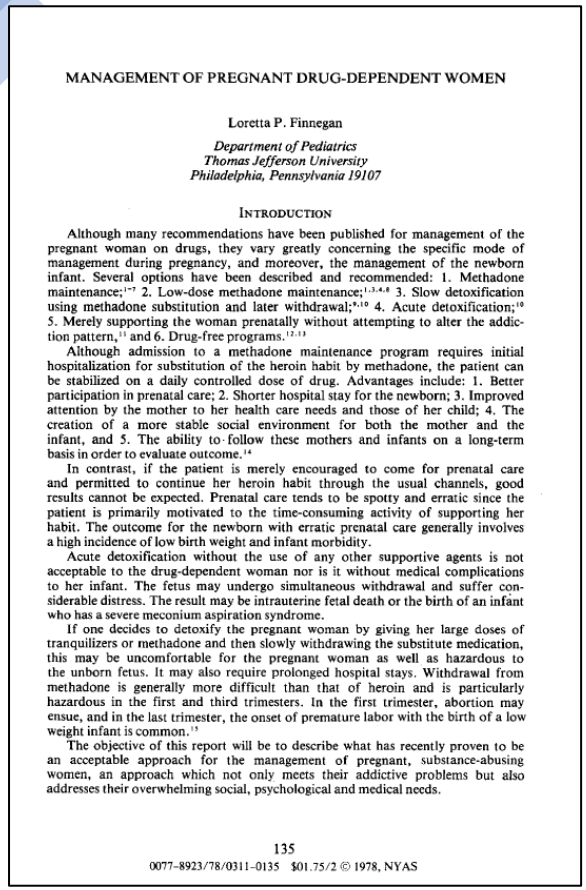
- Screening w validated instrument recommended
- Drug testing not recommended – false-positive/false-negative results, presumptive vs definitive testing, consent required, and not assessment of use disorder
- Drug testing = not a parenting test
- Safety assessments = more than drug test result

Toxicology screens are not a substitute for verbal, interactive questioning and screening of patients about their drug and alcohol use.

Treatment



“Gold Standard” is Integration: Comprehensive co-located service delivery



MANAGEMENT OF PREGNANT DRUG-DEPENDENT WOMEN

Loretta P. Finnegan

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Philadelphia, Pennsylvania 19107

INTRODUCTION

Although many recommendations have been published for management of the pregnant woman on drugs, they vary greatly concerning the specific mode of management during pregnancy, and moreover, the management of the newborn infant. Several options have been described and recommended: 1. Methadone maintenance;[1-7] 2. Low-dose methadone maintenance;[1,3,4,8] 3. Slow detoxification using methadone substitution and later withdrawal;[9,10] 4. Acute detoxification;[10] 5. Merely supporting the woman prenatally without attempting to alter the addiction pattern,[11] and 6. Drug-free programs.[12,13]

Although admission to a methadone maintenance program requires initial hospitalization for substitution of the heroin habit by methadone, the patient can be stabilized on a daily controlled dose of drug. Advantages include: 1. Better participation in prenatal care; 2. Shorter hospital stay for the newborn; 3. Improved attention by the mother to her health care needs and those of her child; 4. The creation of a more stable social environment for both the mother and the infant, and 5. The ability to follow these mothers and infants on a long-term basis in order to evaluate outcome.[14]

In contrast, if the patient is merely encouraged to come for prenatal care and permitted to continue her heroin habit through the usual channels, good results cannot be expected. Prenatal care tends to be spotty and erratic since the patient is primarily motivated to the time-consuming activity of supporting her habit. The outcome for the newborn with erratic prenatal care generally involves a high incidence of low birth weight and infant morbidity.

Acute detoxification without the use of any other supportive agents is not acceptable to the drug-dependent woman nor is it without medical complications to her infant. The fetus may undergo simultaneous withdrawal and suffer considerable distress. The result may be intrauterine fetal death or the birth of an infant who has a severe meconium aspiration syndrome.

If one decides to detoxify the pregnant woman by giving her large doses of tranquilizers or methadone and then slowly withdrawing the substitute medication, this may be uncomfortable for the pregnant woman as well as hazardous to the unborn fetus. It may also require prolonged hospital stays. Withdrawal from methadone is generally more difficult than that of heroin and is particularly hazardous in the first and third trimesters. In the first trimester, abortion may ensue, and in the last trimester, the onset of premature labor with the birth of a low weight infant is common.[15]

The objective of this report will be to describe what has recently proven to be an acceptable approach for the management of pregnant, substance-abusing women, an approach which not only meets their addictive problems but also addresses their overwhelming social, psychological and medical needs.

0077-8923/78/0311-0135 $01.75/2 © 1978, NYAS

	Obstetrical Complications	LBW
Untreated OUD – No PNC	36.9%	47.7%
Methadone – No PNC	32.1%	35.5%
Methadone - + PNC	33.7%	19.7%
No SUD – No PNC	32.3%	19.4%
No SUD - + PNC	32.0%	13.9%

Matern Child Health J (2017) 21:893–902
DOI 10.1007/s10995-016-2190-y

The Prevalence and Impact of Substance Use Disorder and Treatment on Maternal Obstetric Experiences and Birth Outcomes Among Singleton Deliveries in Massachusetts

Milton Kotelchuck[1] · Erika R. Cheng[2] · Candice Belanoff[3] · Howard J. Cabral[3] · Hermik Babakhanlou-Chase[4] · Taletha M. Derrington[5] · Hafsatou Diop[6] · Stephen R. Evans[3] · Judith Bernstein[3]

Core Principle of PNC:

Optimize maternal health via chronic disease management

	No Addiction	Treated Addiction	Untreated Addiction
Preterm Birth	8.7%	10.1%	19.0%
Low Birthweight	5.5%	7.8%	18.0
Fetal Death	0.4%	0.5%	0.8%
Neonatal Mortality	0.4%	0.4%	1.2%
Post Neonatal Mortality	0.05%	0.03%	0.1%

Addiction: From Reward Seeking to Relief Seeking

Heroin Addiction—A Metabolic Disease

Vincent P. Dole, MD, and Marie E. Nyswander, MD, New York

THE METHADONE Maintenance Research Program[1-3] began three years ago with pharmacological studies conducted on the metabolic ward of the Rockefeller University Hospital. Only six addict patients were treated during the first year, but the results of this work were sufficiently impressive to justify a trial of maintenance treatment of heroin addicts admitted to open medical wards of general hospitals in the city.

Methadone therapy was started in low dosage (10 to 20 mg/day in divided portions) and increased slowly over a period of four to six weeks to avoid narcotic effects. After the patients had reached the stabilization level (80 to 120 mg/day) it was possible to maintain them with a single, daily, oral ration, without further increase in dose. At the end of the six weeks of hospitalization the patients were discharged to outpatient clinics where they received their daily

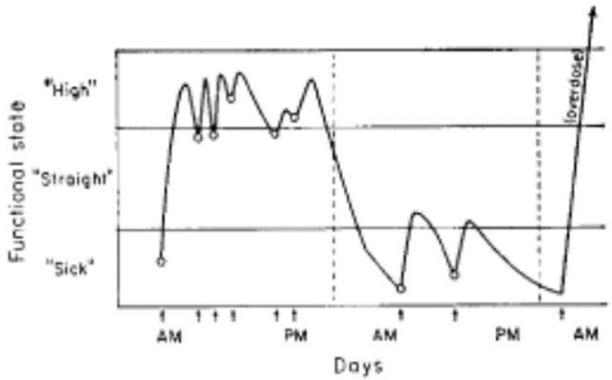


Fig 1.—Diagrammatic summary of functional state of typical "mainline" heroin user. *Arrows* show the repetitive injection of heroin in uncertain dose, usually 10 to 30 mg but sometimes much more. Note that addict is hardly ever in a state of normal function ("straight").

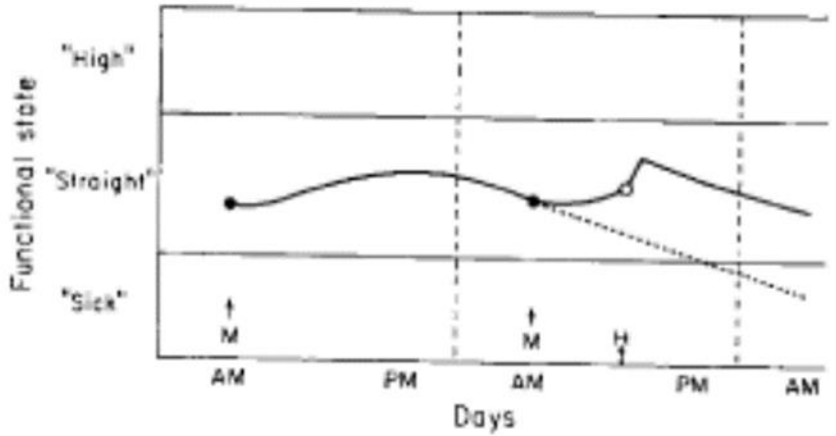
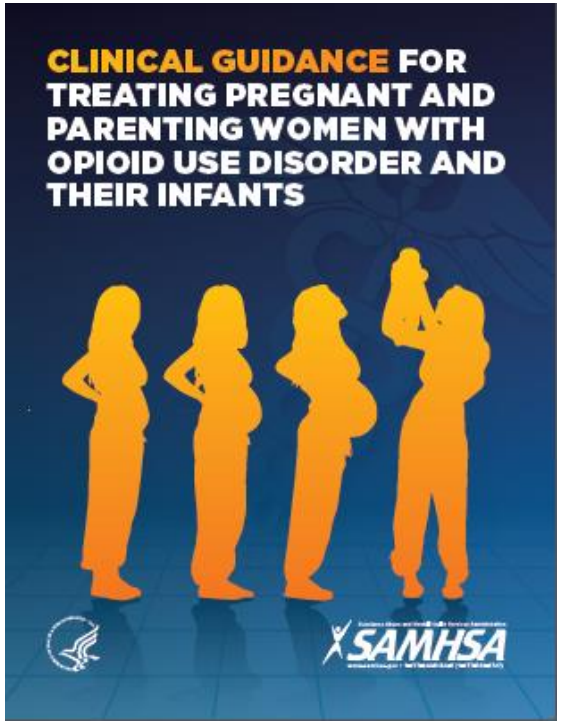


Fig 2.—Stabilization of patient in state of normal function by blockade treatment. A single, daily, oral dose of methadone prevents him from feeling symptoms of abstinence ("sick") or euphoria ("high"), even if he takes a shot of heroin. *Dotted line* indicates course if methadone is omitted.

Goal of MOUD

- Mu Opioid Receptor Action:
  - Decrease or eliminate cravings
  - Control physiological withdrawal
  - Prevent euphoria from use of other mu agonists

- Stability – platform for recovery
- Improved engagement in behavioral care
- Decrease HIV/HCV
- Psychosocial improvement (employment etc)
- Prevent overdose and overdose death



SAMHSA Clinical Guide Recommendations

- Medically supervised withdrawal is not recommended during pregnancy
- Buprenorphine and methadone are the safest medications for managing OUD during pregnancy
- Transitioning from methadone to buprenorphine or from buprenorphine to methadone during pregnancy is not recommended

Most People Receive no Treatment in Pregnancy

Table 3
Past year substance use disorder treatment receipt among reproductive age women in need of treatment.

Substance use disorder diagnosis	Total[a]	Not pregnant nor parenting	Pregnant[†]			Parenting	P values[‡]
			1st trimester	2nd trimester	3rd trimester		
Any past year substance use disorder	9.3% (8.4–10.2)	8.8% (7.7–9.8)	12.8% (8.7–16.9)			9.9% (8.5–11.4)	0.063
treatment need[§]			12.5% (7.3–17.7)	9.4% (4.7–14.0)	18.7% (5.5–32.0)		0.246
Alcohol use disorder	7.4% (6.6–8.3)	6.8% (5.9–7.7)	11.8% (7.2–16.5)			8.2% (6.6–9.9)	0.021
			11.7% (5.8–17.6)	9.0% (3.3–14.7)	16.2% (2.6–29.9)		0.505
Illicit drug use disorder[‖]	17.1% (15.5–18.7)	17.0% (14.8–19.2)	21.8% (13.9–29.6)			16.5% (13.7–19.3)	0.439
			26.0% (15.1–36.8)	13.2%	29.2%		0.187
Opioid use disorder[¶]	23.6% (18.9–28.2)	31.1% (27.0–35.1)	34.7% (20.7–48.7)			23.6% (18.9–28.2)	0.033
			54.2% (30.2–78.1)	20.0% (3.5–36.5)	31.1% (0.0–63.7)		0.152

Martin, 2020, DAD

Racial Inequities in Medications for OUD

Table 2. Adjusted and Unadjusted Odds Ratios for Use of Medication and Type of Medication for Pregnant Women With Opioid Use Disorder

Variable	Odds ratio (95% CI)		Pseudo-R^2	
	Unadjusted	Adjusted[a]	Full model	Model without race/ethnicity
Any treatment use			0.09	0.06
Medication vs no medication				
White non-Hispanic	1 [Reference]	1 [Reference]		
Black non-Hispanic	0.39 (0.30-0.51)	0.37 (0.28-0.49)		
Hispanic	0.44 (0.36-0.53)	0.42 (0.35-0.52)		
Consistency of treatment use			0.09	0.06
Consistent use vs no medication				
White non-Hispanic	1 [Reference]	1 [Reference]		
Black non-Hispanic	0.26 (0.18-0.37)	0.24 (0.17-0.35)		
Hispanic	0.36 (0.28-0.46)	0.34 (0.27-0.44)		
Consistent vs inconsistent treatment use				
White non-Hispanic	1 [Reference]	1 [Reference]		
Black non-Hispanic	0.44 (0.30-0.66)	0.44 (0.30-0.65)		
Hispanic	0.65 (0.50-0.85)	0.64 (0.48-0.83)		
Type of medication			0.12	0.09
Buprenorphine (alone) vs methadone (any)				
White non-Hispanic	1 [Reference]	1 [Reference]		
Black non-Hispanic	0.53 (0.36-0.79)	0.60 (0.40-0.90)		
Hispanic	0.68 (0.52-0.90)	0.77 (0.58-1.01)		
Buprenorphine vs none				
White non-Hispanic	1 [Reference]	1 [Reference]		
Black non-Hispanic	0.27 (0.19-0.39)	0.28 (0.19-0.40)		
Hispanic	0.36 (0.28-0.46)	0.37 (0.29-0.47)		

JAMA Network Open. 2020;3(5):e205734. doi:10.1001/jamanetworkopen.2020.5734

Journal of Substance Abuse Treatment 131 (2021) 108454

Contents lists available at ScienceDirect

Journal of Substance Abuse Treatment

journal homepage: www.elsevier.com/locate/jsat

Racial inequity in methadone dose at delivery in pregnant women with opioid use disorder

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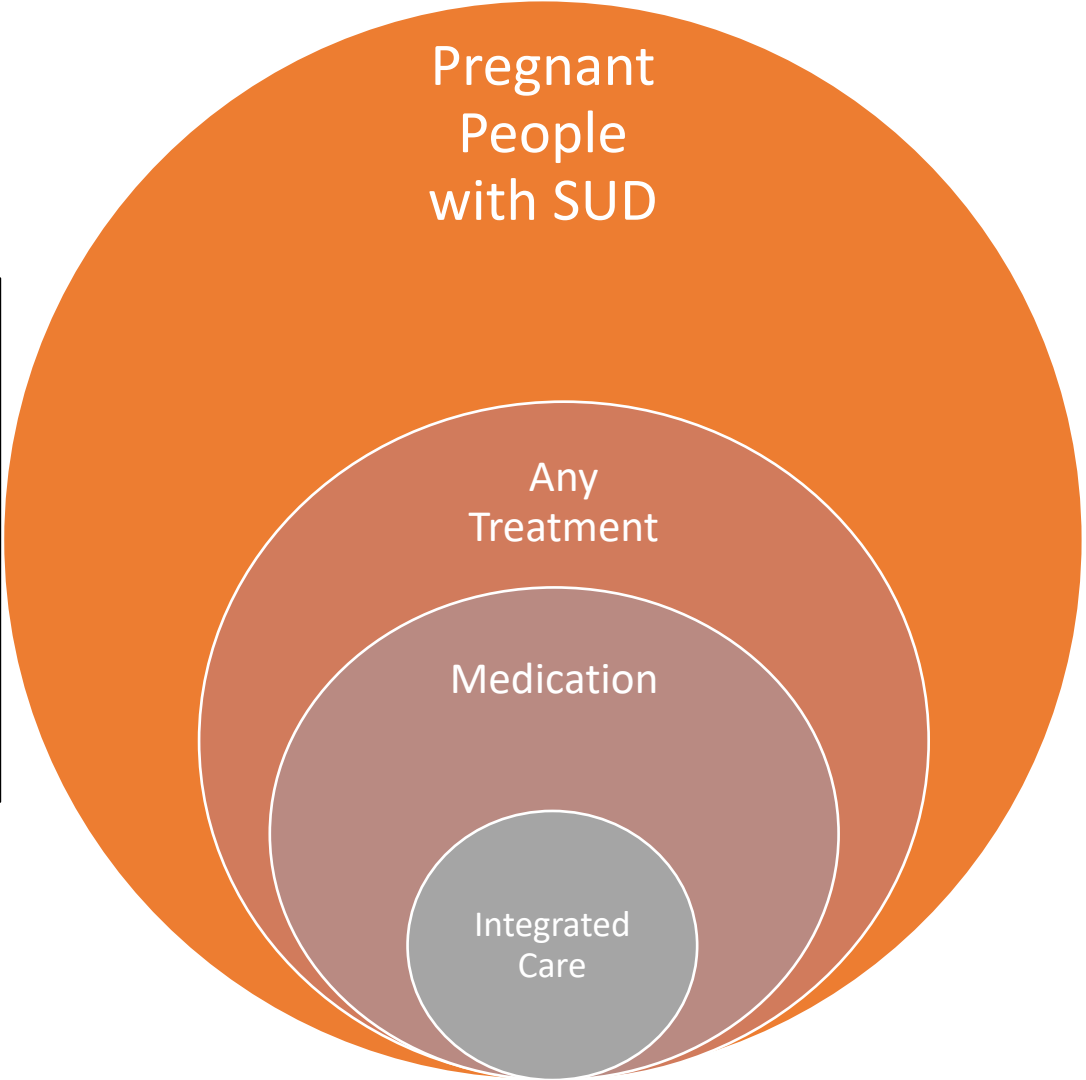
	White NH	Black NH	Hispanic
Methadone Dose	144.9	97.5	129.8

Comprehensive treatment and medication are rare and unavailable for most pregnant people with SUD



Treatment Summary

1) Most people quit or cut back substance use in pregnancy

2) Those that don’t, likely have a use disorder

3) People with addiction need and benefit from treatment

4) But most people don’t receive any treatment, because treatment doesn't always exist and what exists may not be welcoming or safe, especially for pregnant or parenting people

Be Prepared. Get Naloxone. Save A Life.

- High affinity for opioid receptor
- Reverses Overdose
- Nonscheduled, non-addictive, no potential for abuse
- Only works if person has opioids in system
- Safe for pets, children, people who are pregnant …. Anyone
- Temporary effect, wears off 20-90 minutes
- No limit to amount used

The 4th Trimester: Postpartum

Contraception 99 (2019) 36–41

Contents lists available at ScienceDirect

Contraception

journal homepage: www.elsevier.com/locate/con

Original research article

Prenatal intent and postpartum receipt of long-acting reversible contraception among women receiving medication-assisted treatment for opioid use disorder

Anupama Kotha [a], Beatrice A. Chen [a,b], Lauren Lewis [c], Shannon Dunn [b], Katherine P. Himes [a,b], Elizabeth E. Krans [a,b,*]

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ARTICLE INFO

Article history:
Received 20 April 2018
Received in revised form 20 July 2018
Accepted 5 August 2018

Keywords:
Opioid use disorder
Pregnancy
Postpartum contraception
Long-acting reversible contraception

ABSTRACT

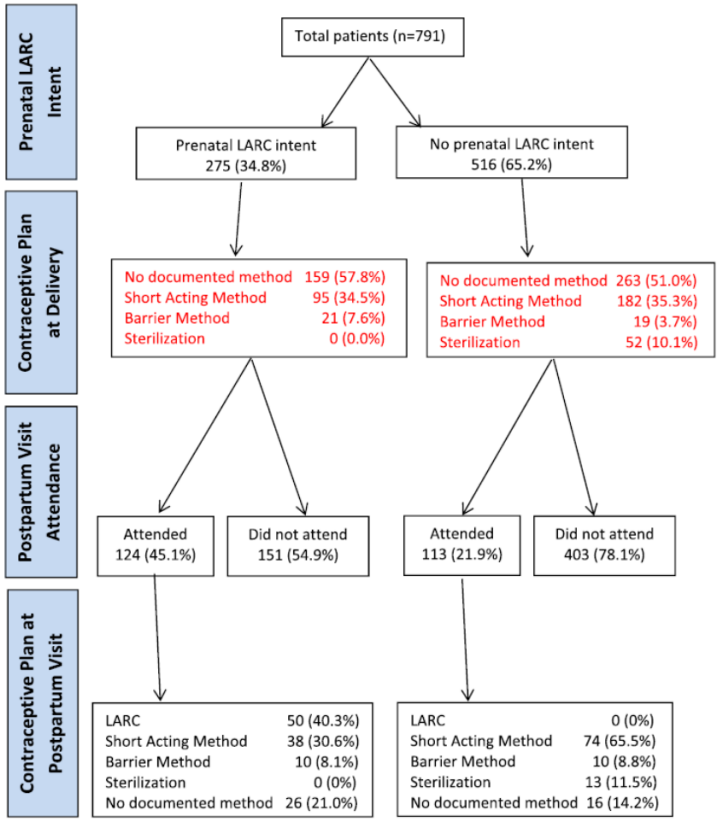
Background: Many women with opioid use disorder (OUD) do not use highly effective postpartum contraception such as long-acting reversible contraception (LARC). We evaluated factors associated with prenatal intent and postpartum receipt of LARC among women receiving medication-assisted treatment (MAT) for OUD.

Study design: This was a retrospective cohort study of 791 pregnant women with OUD on MAT who delivered at an academic institution without immediate postpartum LARC services between 2009 and 2012. LARC intent was defined as a documented plan for postpartum LARC during pregnancy and LARC receipt was defined as documentation of LARC placement by 8 weeks postpartum. We organized contraceptive methods into five categories: LARC, female sterilization, short-acting methods, barrier methods and no documented method. Multivariable logistic regression identified characteristics predictive of prenatal LARC intent and postpartum LARC receipt.

Results: Among 791 pregnant women with OUD on MAT, 275 (34.8%) intended to use postpartum LARC and only 237 (29.9%) attended the postpartum visit. Among 275 women with prenatal LARC intent, 124 (45.1%) attended their postpartum visit and 50 (18.2%) received a postpartum LARC. Prenatal contraceptive counseling (OR 6.67; 95% CI 3.21, 13.89) was positively associated with LARC intent. Conversely, older age (OR 0.95; 95% CI 0.91, 0.98) and private practice provider (OR 0.48; 95% CI 0.32, 0.72) were negatively associated with LARC intent. Although parity was not predictive of LARC intent, primiparous patients (CI 0.49; 95% CI 0.26, 0.97) were less likely to receive postpartum LARC.

Conclusions: Discrepancies exist between prenatal intent and postpartum receipt of LARC among pregnant women with OUD on MAT. Immediate postpartum LARC services may reduce LARC access barriers.

Implications: Despite prenatal interest in using LARC, most pregnant women with OUD on MAT did not receive postpartum LARC. The provision of immediate postpartum LARC services may reduce barriers to postpartum LARC receipt such as poor attendance at the postpartum visit.



OUD = opioid use disorder; MAT = medication-assisted treatment

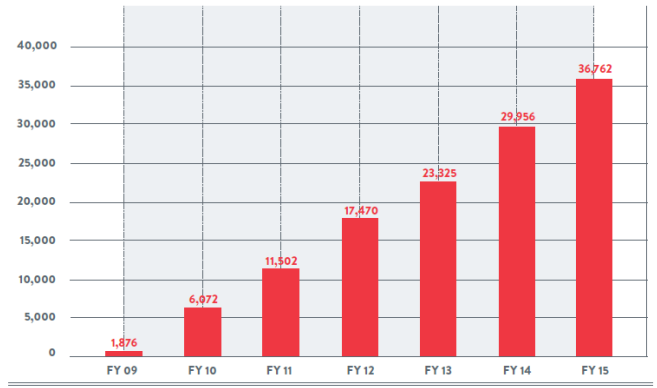
Fig. 1. Documented prenatal and postpartum contraceptive plans among pregnant women with OUD on MAT, $n=791$. OUD, opioid use disorder; MAT, medication-assisted treatment.

Colorado LARC Experiment

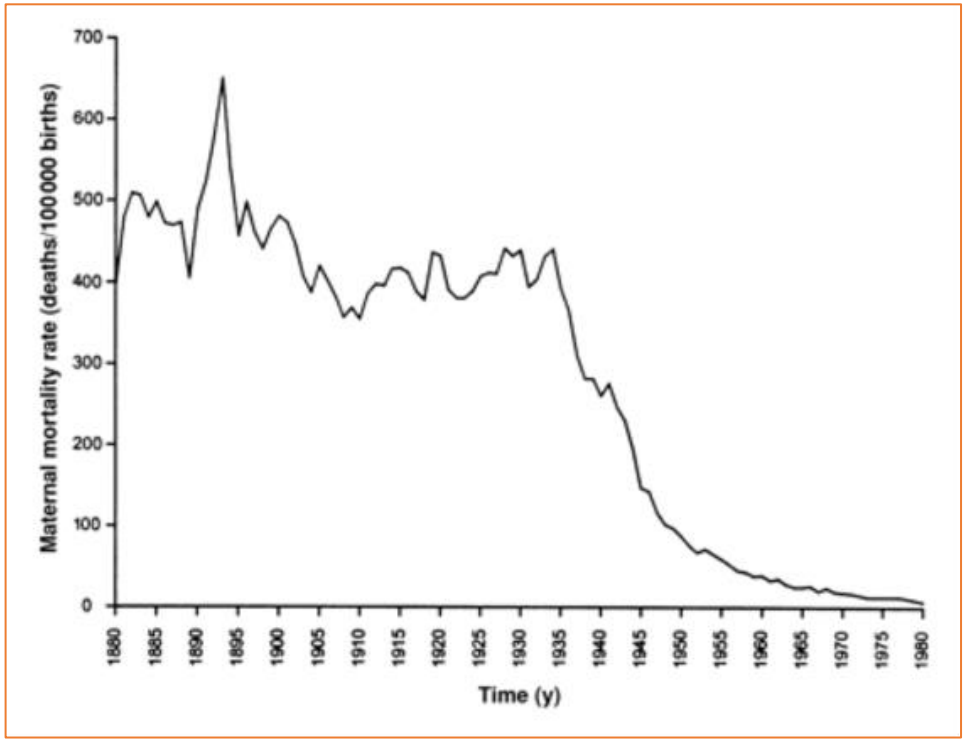
TAKING THE UNINTENDED OUT OF PREGNANCY:

COLORADO'S SUCCESS WITH LONG-ACTING REVERSIBLE CONTRACEPTION

FIGURE 4:
CUMULATIVE NUMBER OF LARC INSERTIONS IN TITLE X CLINICS, COLORADO, FY 2009–FY 2015



The 4th Trimester: Maternal Mortality



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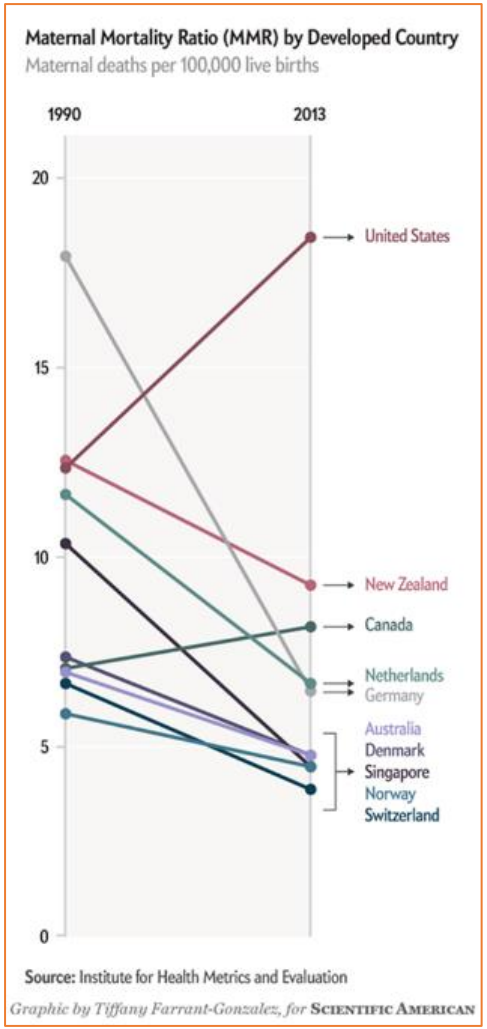


PERIOPERATIVE MEDICINE

Opioid Abuse and Dependence during Pregnancy

Temporal Trends and Obstetrical Outcomes

Ayumi Maeda, M.D., Brian T. Bateman, M.D., M.Sc., Caitlin R. Clancy, B.A., Andreea A. Creanga, M.D., Ph.D., Lisa R. Leffert, M.D.

Table 2. Associations between Opioid Abuse or Dependence during Pregnancy and Obstetrical Outcomes: United States, 2007–2011

	Delivery Hospitalizations with Opioid Abuse or Dependence	Delivery Hospitalizations without Opioid Abuse or Dependence	
	n (%)	n (%)	Multivariable Odds Ratio* (95% CI)
Total	60,994	20,456,485	
Died during hospitalization	20 (0.03)	1,311 (0.006)	**4.6 (1.8–12.1)**
Cardiac arrest	24 (0.04)	1,873 (0.01)	**3.6 (1.4–9.1)**
Intrauterine growth restriction	4,157 (6.8)	431,032 (2.1)	**2.7 (2.4–2.9)**
Placental abruption	2,315 (3.8)	215,057 (1.1)	**2.4 (2.1–2.6)**
Length of stay >7 days	1,837 (3.0)	235,738 (1.2)	**2.2 (2.0–2.5)**
Preterm	10,538 (17.3)	1,506,941 (7.4)	**2.1 (2.0–2.3)**
Oligohydramnios	2,736 (4.5)	564,410 (2.8)	**1.7 (1.6–1.9)**
Transfusion	1,205 (2.0)	208,073 (1.0)	**1.7 (1.5–1.9)**
Stillbirth	727 (1.2)	124,607 (0.6)	**1.5 (1.3–1.8)**
Premature rupture of membranes	3,499 (5.7)	778,157 (3.8)	**1.4 (1.3–1.6)**
Cesarean delivery	22,130 (36.3)	6,768,679 (33.1)	**1.2 (1.1–1.3)**
Severe preeclampsia or eclampsia	722 (1.2)	289,668 (1.4)	**0.8 (0.7–0.9)**
Anesthesia complications	20 (0.03)	3,123 (0.02)	2.1 (0.8–5.3)
Cerebrovascular complications	37 (0.06)	5,079 (0.02)	2.0 (0.9–4.4)
Sepsis	273 (0.4)	79,169 (0.4)	1.3 (1.0–1.7)
Postpartum hemorrhage	1,866 (3.1)	589,811 (2.9)	1.1 (0.9–1.2)

Research Article

Maternal Opioid Drug Use during Pregnancy and Its Impact on Perinatal Morbidity, Mortality, and the Costs of Medical Care in the United States

Valerie E. Whiteman,[1] Jason L. Salemi,[2] Mulubrhan F. Mogos,[3] Mary Ashley Cain,[1] Muktar H. Aliyu,[4] and Hamisu M. Salihu[1,2]

Table 2: Rates[a] of selected clinical outcomes by opioid use status and odds ratios and 95% confidence intervals for the association between opioid use and each outcome among pregnancy-related discharges, NIS, 1998–2009.

Outcomes	Rate[a] of outcome		OR (95% CI)		
	Opioid users	Nonopioid users	Model 1[b]	Model 2[c]	Model 3[d]
Maternal					
Threatened preterm labor	30.1	22.3	1.36 (1.24–1.49)	1.34 (1.22–1.47)	1.32 (1.19–1.45)
Early onset delivery	124.0	65.2	2.03 (1.88–2.20)	1.92 (1.77–2.07)	1.72 (1.59–1.85)
PROM	38.5	35.4	1.10 (1.00–1.20)	1.12 (1.03–1.23)	1.06 (0.98–1.16)
Wound infection	7.0	5.0	1.41 (1.18–1.68)	1.19 (1.00–1.42)	1.17 (0.98–1.40)
Acute renal failure	2.1	0.5	4.10 (3.11–5.41)	2.78 (2.09–3.72)	2.84 (2.11–3.84)
Postpartum depression[f]	24.7	2.1	12.04 (10.83–13.40)	2.09 (1.79–2.44)	1.75 (1.49–2.05)
Hospital stay >5 days[e]	133.4	29.9	5.00 (4.16–6.02)	4.83 (4.10–5.69)	4.02 (3.41–4.74)
In-hospital maternal mortality	0.8	0.1	5.89 (3.74–9.28)	3.63 (2.32–5.68)	3.69 (2.32–5.87)
Fetal					
Poor fetal growth	35.9	15.9	2.31 (2.10–2.55)	2.21 (2.00–2.44)	1.61 (1.46–1.77)
Stillbirth	10.0	6.3	1.60 (1.39–1.83)	1.41 (1.23–1.62)	1.32 (1.15–1.51)

Opioids: *Original Research*

Fatal and Nonfatal Overdose Among Pregnant and Postpartum Women in Massachusetts

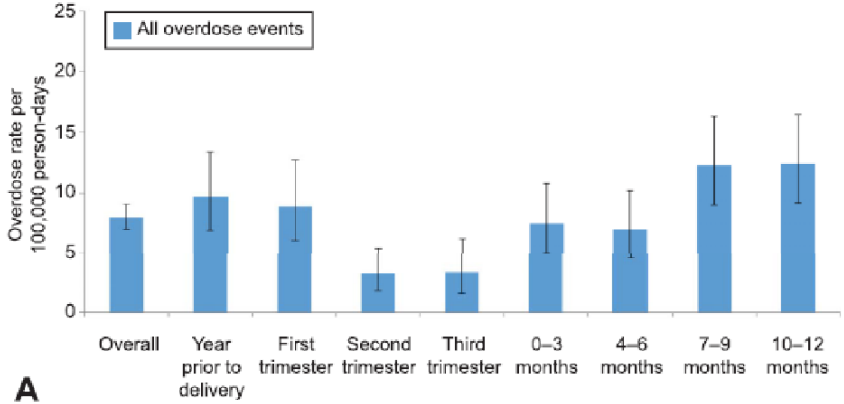
OBSTETRICS & GYNECOLOGY

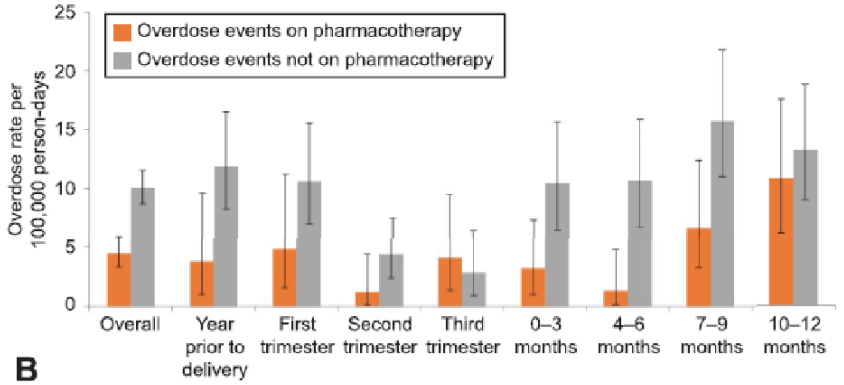
Davida M. Schiff, MD, MSc, Timothy Nielsen, MPH, Mishka Terplan, MD, MPH, Malena Hood, MPH, Dana Bernson, MPH, Hafsatou Diop, MD, MPH, Monica Bharel, MD, MPH, Timothy E. Wilens, MD, Marc LaRochelle, MD, MPH, Alexander Y. Walley, MD, MSc, and Thomas Land, PhD

Table 2. Opioid Overdose Rates Among Pregnant and Parenting Women With Evidence of Opioid Use Disorder in the Year Before Delivery (n=4,154)

Period Relative to Delivery	All OD Events	OD Events While Receiving Pharmacotherapy	OD Events Not Receiving Pharmacotherapy
Overall	7.99 (7.01–9.06)	4.43 (3.28–5.86)*	10.04 (8.67–11.56)*
Year before delivery–conception	9.72 (6.91–13.29)	3.74 (1.02–9.57)	11.89 (8.28–16.54)
Trimester (weeks of gestation)			
1st (0–12)	8.88 (6.04–12.61)	4.79 (1.56–11.18)	10.63 (6.94–15.58)
2nd (13–28)	3.23 (1.81–5.32)	1.20 (0.15–4.35)	4.35 (2.32–7.44)
3rd (29 or greater)	3.32 (1.59–6.10)†	4.08 (1.32–9.51)	2.80 (0.91–6.53)
Postpartum (mo)			
0–3	7.41 (4.92–10.71)	3.17 (1.03–7.41)	10.44 (6.62–15.67)
4–6	6.89 (4.50–10.10)	1.31 (0.16–4.74)*	10.67 (6.84–15.88)*
7–9	12.2 (8.93–16.28)†	6.74 (3.23–12.40)	15.75 (11.03–21.80)
10–12	12.35 (9.07–16.42)†	10.84 (6.20–17.60)	13.3 (9.04–18.88)

OD, opioid overdose.
Data are rate/100,000 person-days (95% CI).
* Denotes statistically significant difference between overdose rates among women receiving pharmacotherapy vs women not receiving pharmacotherapy.
† Denotes statistically significant difference between overall overdose rates during third trimester and 7–12 months postpartum.





Infectious Disease: *Original Research* **OBSTETRICS & GYNECOLOGY**

Prevalence of Maternal Hepatitis C Virus Infection in Ohio

VOL. 132, NO. 3, SEPTEMBER 2018

Robert M. Rossi, MD, and Carri R. Warshak, MD

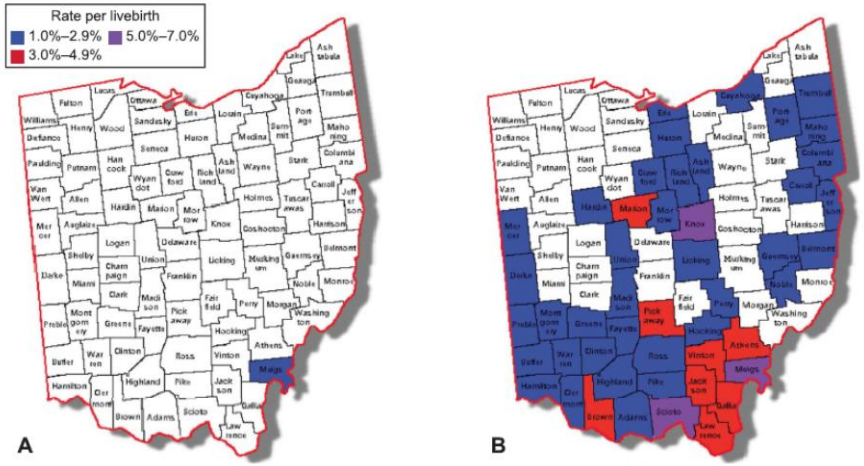
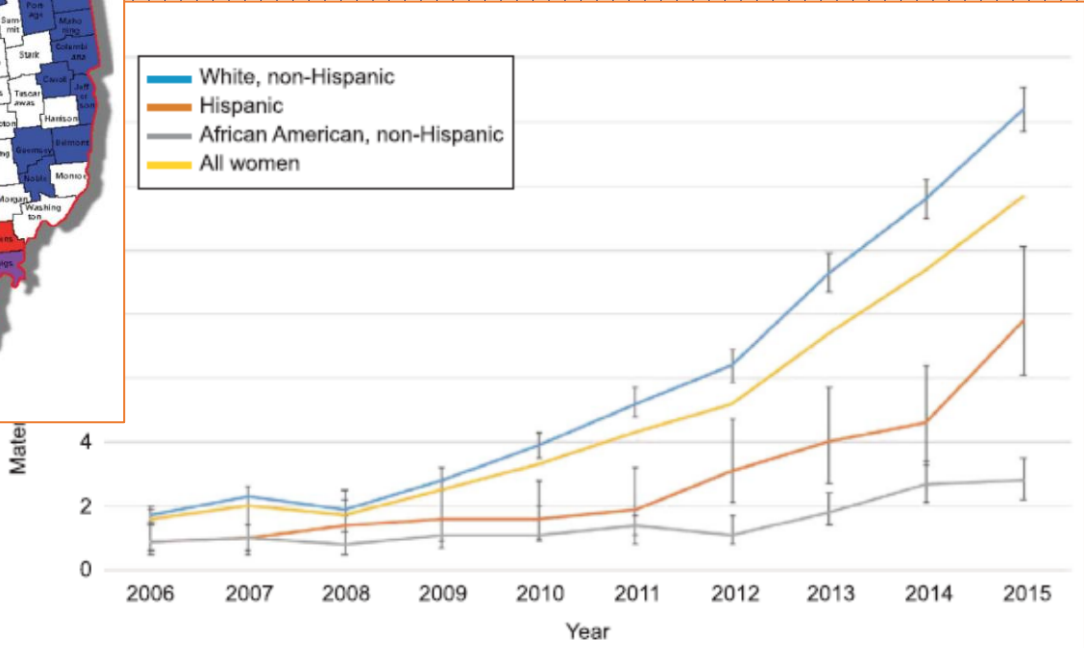


Fig. 2. Maternal hepatitis C virus infection rates in Ohio by county for 2006 (**A**) and 2015 (**B**).
Rossi. Maternal HCV Trends in Ohio. Obstet Gynecol 2018.



Maternal and Child Health Journal (2018) 22:1208–1216
https://doi.org/10.1007/s10995-018-2506-1

Hepatitis C Virus Knowledge Among P
Disorder

Elizabeth E. Krans[1,2] · Scott D. Rothenberger[3] · Penelope
Mary J. Turocy[2] · Susan Zickmund[5,6]

Published online: 3 March 2018

Abstract

Objectives To evaluate Hepatitis C virus (HCV) knowledge a
(OUD). *Methods* From May through November 2015, a one-t
women with OUD to assess their knowledge and awareness
vention strategies, (c) hepatotoxic risk reduction and (d) peri
Chi square and Fisher's exact tests were used to compare der
pants who were HCV positive and negative. *Results* Of 179
the survey. Of these, 153 (90.5%) reported at least one risk
38 (44.7%) of HCV positive women were diagnosed with H
was evaluated, 114 (66.7%) responded that sharing eating ut
vaccine to prevent HCV and 56 (32.7%) did not identify intr
HCV positive women, 61 (71.8%) associated breastfeeding w
identify the importance of pediatric follow-up for HCV-expo
transmission as "likely" or "very likely." *Conclusions for Pr*
population of pregnant women with OUD. Healthcare provi
counseling during pregnancy.

Keywords Pregnancy · Hepatitis C virus · Opioid use disord

SUBSTANCE ABUSE
2016, VOL. 37, NO. 1, 88–95
http://dx.doi.org/10.1080/08897077.2015.1118720

Routledge
Taylor & Francis Group

ORIGINAL RESEARCH

Screening and evaluation of hepatitis C virus infection in pregnant women on opioid maintenance therapy: A retrospective cohort study

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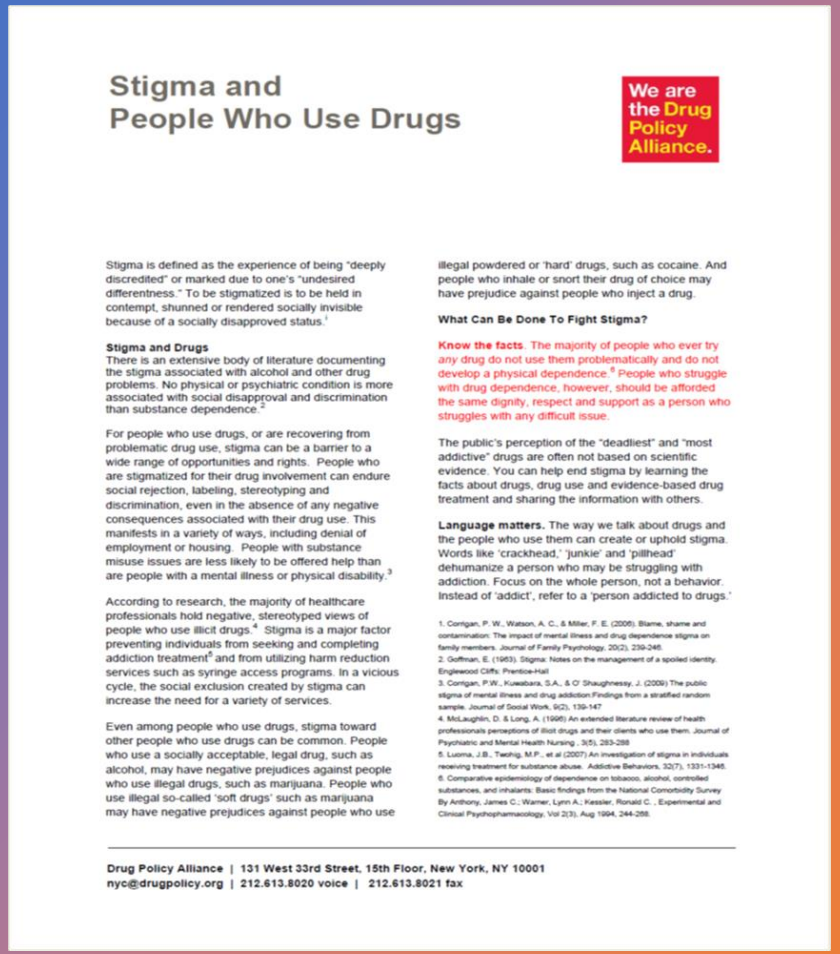
ABSTRACT

Background: The purpose of this study was to describe the delivery of prenatal care services to women with opioid use disorder (OUD) on opioid maintenance therapy at high risk for hepatitis C virus (HCV) infection. *Methods*: We conducted a retrospective cohort evaluation of 791 pregnant women with OUD from 2009 to 2012. HCV screening was defined as documentation of (a) an anti-HCV antibody test or (b) a provider discussion regarding a known HCV diagnosis during pregnancy. Multivariate logistic regression was used to identify predictors of HCV screening during pregnancy. *Results*: Among 791 pregnant women with OUD, 611 (77.2%) were screened for HCV infection and 369/611 (60.4%) were HCV positive. In multivariable analysis, patients who were married (odds ratio [OR] = 0.52; 95% confidence interval [CI] = 0.29, 0.91), used buprenorphine (OR = 0.45; 95% CI = 0.28, 0.71), and were cared for by private practice providers (OR = 0.29; 95% CI = 0.19, 0.45) were significantly less likely to be screened. In contrast, patients who used benzodiazepines (OR = 1.72; 95% CI = 1.02, 2.92), intravenous (IV) opioids (OR = 6.15; 95% CI = 3.96, 9.56), had legal problems (OR = 2.23; 95% CI = 1.12, 4.45), had children not in their custody (OR = 1.81; 95% CI = 1.01, 3.24), and who had a partner with substance abuse history (OR = 2.38; 95% CI = 1.23, 4.59) were significantly more likely to be screened. Of 369 HCV-positive patients, a new diagnosis of HCV was made during pregnancy for 108 (29.3%) patients. Only 94 (25.5%) had HCV viral load testing, 61 (16.5%) had HCV genotype testing, and 38 (10.4%) received an immunization for hepatitis A. Although 285 (77.2%) patients were referred to hepatology, only 71 (24.9%) attended the consultation. Finally, only 6 (1.6%) patients received HCV treatment 1 year following delivery. *Conclusions*: Prenatal care approaches to HCV infection remain inconsistent, and the majority of patients diagnosed with HCV infection during pregnancy do not receive treatment after delivery.

KEYWORDS
Hepatitis C virus; opioid dependence; pregnancy; prenatal care screening



Stigma and People Who Use Drugs

We are the Drug Policy Alliance.

Stigma is defined as the experience of being "deeply discredited" or marked due to one's "undesired differentness." To be stigmatized is to be held in contempt, shunned or rendered socially invisible because of a socially disapproved status.[1]

Stigma and Drugs
There is an extensive body of literature documenting the stigma associated with alcohol and other drug problems. No physical or psychiatric condition is more associated with social disapproval and discrimination than substance dependence.[2]

For people who use drugs, or are recovering from problematic drug use, stigma can be a barrier to a wide range of opportunities and rights. People who are stigmatized for their drug involvement can endure social rejection, labeling, stereotyping and discrimination, even in the absence of any negative consequences associated with their drug use. This manifests in a variety of ways, including denial of employment or housing. People with substance misuse issues are less likely to be offered help than are people with a mental illness or physical disability.[3]

According to research, the majority of healthcare professionals hold negative, stereotyped views of people who use illicit drugs.[4] Stigma is a major factor preventing individuals from seeking and completing addiction treatment[5] and from utilizing harm reduction services such as syringe access programs. In a vicious cycle, the social exclusion created by stigma can increase the need for a variety of services.

Even among people who use drugs, stigma toward other people who use drugs can be common. People who use a socially acceptable, legal drug, such as alcohol, may have negative prejudices against people who use illegal drugs, such as marijuana. People who use illegal so-called 'soft drugs' such as marijuana may have negative prejudices against people who use illegal powdered or 'hard' drugs, such as cocaine. And people who inhale or snort their drug of choice may have prejudice against people who inject a drug.

What Can Be Done To Fight Stigma?

Know the facts. The majority of people who ever try *any* drug do not use them problematically and do not develop a physical dependence.[6] People who struggle with drug dependence, however, should be afforded the same dignity, respect and support as a person who struggles with any difficult issue.

The public's perception of the "deadliest" and "most addictive" drugs are often not based on scientific evidence. You can help end stigma by learning the facts about drugs, drug use and evidence-based drug treatment and sharing the information with others.

Language matters. The way we talk about drugs and the people who use them can create or uphold stigma. Words like 'crackhead,' 'junkie' and 'pillhead' dehumanize a person who may be struggling with addiction. Focus on the whole person, not a behavior. Instead of 'addict', refer to a 'person addicted to drugs.'

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Stigma and Discrimination

- Stigma: the experience of being "deeply discredited" or marked due to one's "undesired differentness." To be stigmatized is to be held in contempt, shunned or rendered socially invisible because of a socially disapproved status.

Birth is not Safe for People who use Drugs and Discrimination is a Patient Safety Issue

"Equating a positive toxicology test with child abuse or neglect is scientifically inaccurate and inappropriate, and can lead to an unnecessarily punitive approach, which harms clinician-patient trust and persons' engagement with healthcare services."

ASAM Public Policy Statement on Substance Use and Substance Use Disorder Among Pregnant and Postpartum People, 10, 2022

"The laws, regulations, and policies that require health care practitioners and human service workers to respond to substance use and substance use disorder in a primarily punitive way, require health care providers to function as agents of law enforcement."

ACOG, *Opposition to Criminalization of Individuals During Pregnancy and the Postpartum Period: Statement of Policy, 11, 2020*

Pregnancy and Addiction: Mutual Mistrust

Provider

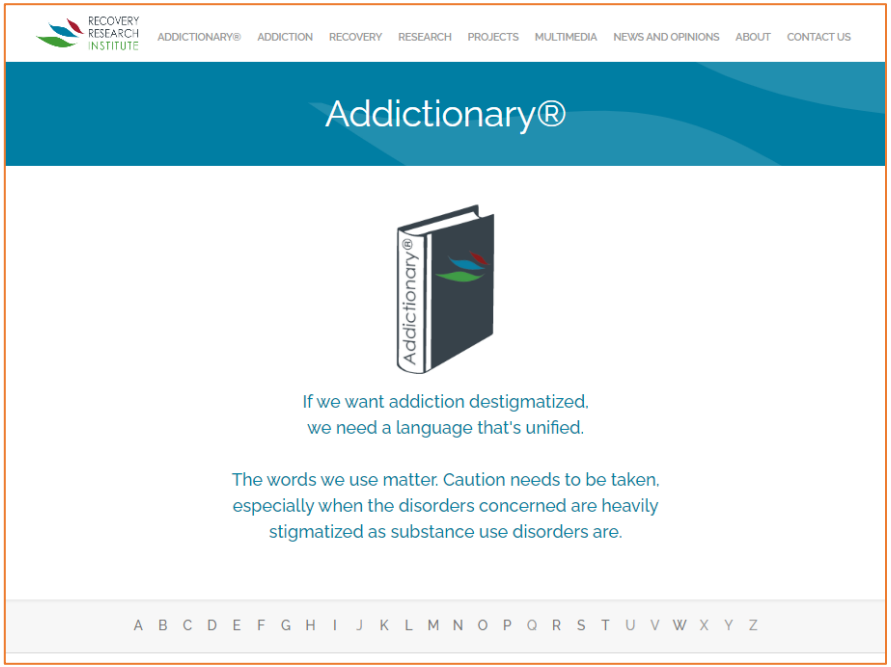
- Mistrust (often) misplaced
- Rooted in discrimination and prejudice
- Consequences of misplaced trust are minor

Patient

- Mistrust warranted by people who experience oppression
- Legitimate: historic memory and everyday discrimination
- Consequences of misplaced trust are severe

Power Differential
Risk/Vulnerability Different
Responsibility for Overcoming Mistrust Rests with Providers

Use Language That:



https://www.recoveryanswers.org/addiction-ary/

1. Respects the worth and dignity of all persons – “People-first language”

2. Focuses on the medical nature of SUD and treatment

3. Promotes the recovery process

4. Avoids perpetuating negative stereotypes and biases through use of slang and idioms

Resisting Stigma and Discrimination By Speaking

Trust-Building through clinical discussion

- What is the most important thing to you about treatment or recovery?
- What do you know about methadone?
- Do you have any fears or concerns from previous treatment experiences?
- What do you need to feel safe?
- What are you looking for in a provider?
- How do you feel your care is going so far?

Center on the Dyad

“There is no such thing as a baby … If you set out to describe a baby, you will find you are describing a baby and someone. A baby can not exist alone, but is essentially part of a relationship”

(D.W. Winnicott 1966)

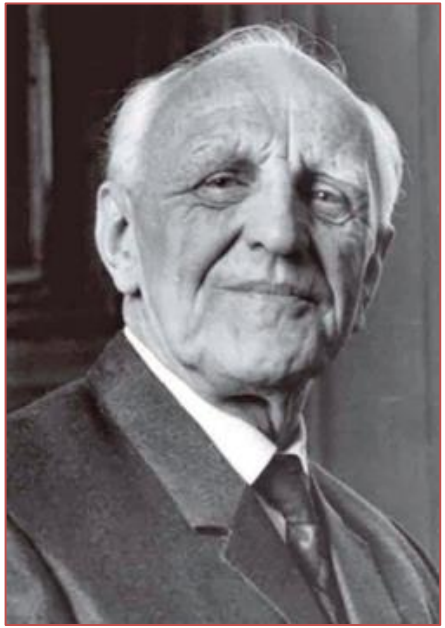


Table III. Foundational principles for the clinical definition of opioid withdrawal in the neonate

1. Substance use disorder is a disease requiring compassionate, ethical, equitable, and evidence-based care.
2. The maternal–neonate dyad is the appropriate subject of care; this definition is intended to identify clinical and supportive care needs of the dyad; shared interests should be prioritized.
3. A diagnosis of NAS or NOWS does not imply harm, nor should it be used to assess child social welfare risk or status. It should not be used to prosecute or punish the mother or as evidence to remove a neonate from parental custody.
4. Environmental factors, family influences, and social structures strongly influence neonatal outcome and should be recognized.

THE JOURNAL OF PEDIATRICS • www.jpeds.com ORIGINAL ARTICLES

Standardizing the Clinical Definition of Opioid Withdrawal in the Neonate

Shahla M. Jilani, MD[1,*], Hendrée E. Jones, PhD[2,3,*], Matthew Grossman, MD[4], Lauren M. Jansson, MD[5], Mishka Terplan, MD, MPH[6], Laura J. Faherty, MD, MPH, MSHP[7,8], Dmitry Khodyakov, PhD, MA[7], Stephen W. Patrick, MD, MPH, MS[9], and Jonathan M. Davis, MD[10]

Objective To standardize the clinical definition of opioid withdrawal in neonates to address challenges in clinical care, quality improvement, research, and public policy for this patient population.
Study design Between October and December 2020, we conducted 2 modified-Delphi panels using ExpertLens, a virtual platform for performing iterative expert engagement panels. Twenty clinical experts specializing in care for the substance-exposed mother–neonate dyad explored the necessity of key evidence-based clinical elements in defining opioid withdrawal in the neonate leading to a diagnosis of neonatal abstinence syndrome (NAS)/neonatal opioid withdrawal syndrome (NOWS). Expert consensus was assessed using descriptive statistics, the RAND/UCLA Appropriateness Method, and thematic analysis of participants' comments.
Results Expert panels concluded the following were required for diagnosis: in utero exposure (known by history, not necessarily by toxicology testing) to opioids with or without the presence of other psychotropic substances, and the presence of at least two of the most common clinical signs characteristic of withdrawal (excessive crying, fragmented sleep, tremors, increased muscle tone, gastrointestinal dysfunction).
Conclusions Results indicate that both a known history of in utero opioid exposure and a distinct set of withdrawal signs are necessary to standardize a definition of neonatal withdrawal. Implementation of a standardized

Focus on Medicine and Public Health as Practice

Evidence-Based

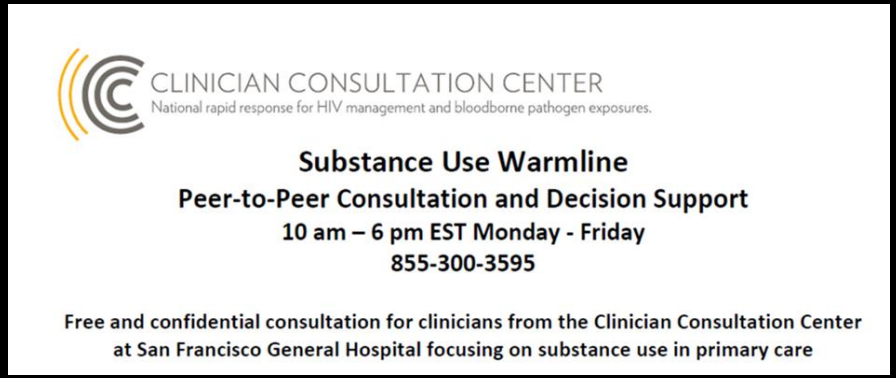
AND

Person-Centered

Conclusion: Do Less Harm

- Evidence-Based: Grounded in Science
  - Harms of illicit substances exaggerated; Effects of licit substances minimized
  - Overstate the importance of intrauterine exposure; Neglect the role of the care-giving environment
- Person-Centered: Ethical and Grounded in Human Rights
  - Reproductive Health as a Human Right - Right to determine whether and when to become pregnant, and right to raise children in safe and sustainable environments
  - Support autonomy and maternal subjectivity in decision making surrounding pregnancy
  - Remain attuned to the unique demands we place on pregnant and parenting people, their bodies and their minds

Thank you, Questions?



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