



Title: URINE TOXICOLOGY TESTING for Medical Indications in the Zuckerberg San Francisco General Birth Center and Nursery

Date(s) revised: 08/10/2021

Purpose of Policy

1. Minimize bias, discrimination, and punitive use of urine toxicology in caring for patients and families.
2. Care for birthing people and infants exposed to substances putting them at high risk for needing specific clinical interventions.
3. This policy is not intended to replace the clinical judgment of a substance use treatment team in using urine drug testing to monitor treatment. It is intended to guide screening outside the context of ongoing treatment.

Statement of Policy

Because of anti-Black racism and other forms of bias, for generations, urine toxicology testing has criminalized people cared for by our healthcare institutions. Regardless of intentions, urine toxicology testing policies have contributed to this harm. Research shows that even in the setting of equal application of urine toxicology testing criteria across populations, Black individuals are tested at higher rates and experience more referrals to child welfare agencies (Roberts and Nuru-Jeter 2011 & 2012). In an effort to address this harm, urine toxicology testing no longer will be used as a proxy for fitness for parenting nor as a sole data point in decision-making regarding plans of safe care.

The criteria mentioned below apply to all birthing people and infants, regardless of age, race, country of origin, language spoken, income level, religion, housing status, etc. Care should be taken to not disclose suspicion of substance use to anyone not directly involved in care planning for families, because substance use disclosures are protected by federal law.

Relevant data

Verbal screening with a validated tool is the gold standard for screening for substance use and is more sensitive than urine toxicology testing (MSBEI Toolkit, Best Practice No. 1, September 2020; ACOG Committee Opinion 2017) Of note, separation of a newborn from the birthing person can be harmful even in cases where drug use is confirmed. The benefits of bonding, skin-to-skin contact, and chest/breastfeeding can outweigh the risks of harm depending on the case. Finally, due to structural racism and social stigma, urine toxicology testing results are weighed heavily in the legal system and can supersede even expert opinion from addiction medicine specialists. For all of these reasons, urine toxicology testing only should be used when it is needed to guide medical decision-making or upon patient request. Of note, the care team should not act on preliminary results but rather await confirmatory testing.

Additional resources

In cases where there is concern about how to best support patients, the interventions below can be considered as dictated by patient needs and preferences. It is not required to have a urine toxicology test to mobilize the resources listed below.

- Assessment of social supports and linkage with any needed community resources by Social Work or other team members.
- Public Health Nursing support.
- A Plan of Safe Care.
- An observation period of 48 hours for term newborns. Care beyond 48 hours may be medically indicated and recommended by the neonatologist depending on the medical status of the newborn.

Indications

Universal verbal screening (preferably NIDA—see Appendix A) **is the gold standard for assessing and identifying families affected by substance use disorder. If verbal disclosure is obtained and documented, urine toxicology is not indicated and risks creating a counterproductive lack of trust. If there is a physical symptom prompting evaluation for drug use, then verbal screening is indicated.**

Indications for urine toxicology testing are to be driven by the need for a change in clinical management based on toxicology results.

If a patient is in substance use treatment, the treatment provider should be contacted before obtaining a urine drug test, unless waiting to make contact would put the patient’s health at risk.

Birthing Person

1. Acute mental status changes, changed level of consciousness not otherwise explained.
2. Unexplained disorientation, psychosis, manic symptoms, ataxia, hallucinations, internal preoccupation, severe psychomotor agitation, confusion, and or somnolence where a toxicology test would dictate medical management.
3. If desired by the birthing person (e.g., to demonstrate recovery and/or safety of chest/breastfeeding).

Newborn considerations for urine toxicology of birthing person*:

1. If a birthing person desires to chest/breastfeed and the following conditions exist:
 - Report of substance use or positive urine toxicology screen during last trimester of pregnancy or within three months of presentation (excluding THC), AND
 - Birthing person is not engaging in substance use treatment or there is no negative toxicology screen subsequent to a positive toxicology screen.
 - Talking to the continuity provider who has a longitudinal relationship with the birthing person is strongly recommended in assessing the level of engagement with recovery.

THEN the birthing person will be asked for a urine toxicology testing result that is negative for stimulants prior to chest/breastfeeding or giving expressed breast milk. This applies to all illicit substances including opioids and others that might be considered safe for chest/breastfeeding (e.g., even if “just” fentanyl or heroin) due to the possible contamination of street drugs with other substances. If there are no stimulants identified on this testing, the patient may chest/breastfeed.



- Additional notes:
 - Timing of any urine toxicology screen should give the birthing person the “best chance of success” for a negative toxicology screen, i.e., at least 3 days after last reported substance use.
 - If the birthing parent does not desire to chest/breastfeed, a urine toxicology screen is NOT recommended. Assessment of safety for discharge should occur without requiring a urine toxicology result.
2. If a newborn exhibits symptoms consistent with intoxication (somnolence, jitteriness/irritability, depressed respiratory and/or cardiovascular status) or withdrawal (inconsolability, poor sleeping, and/or poor feeding) that are otherwise unexplained.
 - The newborn should be evaluated for hypoglycemia, electrolyte abnormalities, and/or any underlying neurologic issues.
 - The birthing person’s medication history including SSRIs, SNRIs, antipsychotics, and therapeutic benzodiazepines/anxiolytics should be reviewed with the birthing parent and primary obstetric/midwifery providers (see Appendix B).
 - If other medical causes have been excluded, the symptoms prompting a request for a urine toxicology test should be discussed by a multidisciplinary team of providers (e.g., bedside nurse, midwife, housestaff, and attending).
 - If the newborn is not exhibiting urgent or emergent symptoms, nighttime teams may choose to defer decision-making about urine toxicology screening to the primary obstetric/midwifery and neonatal providers during the daytime.
 - Refer to the Eat/Sleep/Console policy for a more nuanced discussion of clinical definitions and timelines based on gestation age and hour of life. Briefly, if an infant is able to eat > 1 oz, sleep > 1 hour, and console within 10 minutes, the infant is generally considered “well-managed.”
 3. If a birthing parent had no prenatal care and no history of substance use, urine toxicology testing is not required
 - The following is recommended prior to discharge of the newborn:
 - Verbal screening of the birthing parent for substance use using a validated verbal screen, e.g., NIDA. Positive screens will prompt appropriate follow-up questions and assessments as recommended by the specific tool.
 - Further supports and assessment strategies can also be offered to the family as needed; see suggestions above under Additional Resources

***Important notes for urine toxicology screening of birthing person vs. newborn:**

- Birthing person toxicology is always preferable over a newborn toxicology. Newborn toxicology is only recommended if a newborn indication exists and the birthing person declines toxicology testing.
- If newborn toxicology is requested, the reason for obtaining the test, how it will change medical management, and how it may impact discharge and disposition should be clearly identified in a multidisciplinary discussion with pediatrics and obstetric/midwifery providers, nursing, and the family.

Contraindications

Lack of consent in a patient who has capacity.



Procedure

Birth person

All pregnant birthing people will be verbally screened for substance use. Education will be provided about the impact of substance use during pregnancy, birth, and chest/breastfeeding and about how this information will be used to help in care planning. If substance use is disclosed through verbal screening, confirmatory urine toxicology testing is discouraged as it can be viewed as disrespectful and harmful to the therapeutic relationship.

The primary team will discuss the consideration for urine toxicology testing with the patient. Suggested scripts soon to be posted to Sharepoint. Consent should include the indication for testing, what benefits and disadvantages could result from the test, and what alternatives exist to proceeding with testing. Once verbal consent is obtained, the nurse will obtain and process the urine sample. If consent is not obtained, the urine toxicology test only can be sent if the patient is deemed to lack capacity. This rationale must be clearly documented and supported by history and physical exam findings.

Newborn

The pediatric team will discuss recommendations for urine toxicology testing with the primary team caring for the birthing person (or with the newborn's legal guardian in the absence of the birthing person). Once an interdisciplinary decision has been made, the pediatric providers will discuss the recommendations with the birthing person and/or legal guardian. Although verbal consent is not legally required for pediatric cases, it is best practice to obtain consent. Testing will be performed on newborn urine, not meconium or cord blood.

Follow up of results

Interpretation

Amphetamine, opioid, and benzodiazepine immunoassays can produce false positive results and should be confirmed through more accurate methods of testing, such as liquid chromatography tandem mass spectrometry (LC-MS/MS). However, benzodiazepine false positive results are rare, and this immunoassay, instead, is more known for false negative results. See Appendix B for commonly used medications for the Birth Center that have been reported in the literature as causing a false positive urine toxicology screen with immunoassays. It is critical that the provider caring for the birthing person check if the birthing person was prescribed and taking medications that can result in false positive tests. Of note, amphetamine false positive results have the highest occurrence rate, up to 10%.

The absence of prescribed medications, like buprenorphine or methadone, also should be confirmed through LC-MS/MS.

Synthetic opioids, such as buprenorphine, fentanyl, and methadone, will not produce a positive opiate immunoassay. And, oxycodone will only produce a positive opiate immunoassay screen if the patient is taking high doses. The ZSFG lab has a separate immunoassay screen for oxycodone, methadone, and buprenorphine, but buprenorphine must be specifically ordered if the intention is to confirm buprenorphine adherence since it is not a part of the standard urine toxicology screen. Fentanyl testing by immunoassay is now part of the standard urine toxicology screen.



Preliminary positive results always should be verified before they are acted upon, unless clinical acuity dictates otherwise.

Team response

All positive urine toxicology tests are followed by an interdisciplinary team check in or “time out.” This team check in should occur before any communication with the patient or decision-making regarding chest/breastfeeding, rooming-in, or discharge planning is done. See Appendix C for suggested structured “check-in.”

Safe care planning

The Plan of Safe Care project is available to help care team members craft and implement safe care plans for birthing people and their newborns affected by substance use and mental illness. See Appendix D for more information about the POSC. Care providers should take care in differentiating a concern for neglect, which is primarily a failure of the community to support people to parent, and abuse.

Next steps

The revision of this policy is the first of many steps in creating a more just approach to care planning for families affected by substance use. Community-led strategic planning will guide next steps.



Appendix A: NIDA Screen in EPIC

Flowsheets

File Add Rows LDAAvatar Add Col Insert Col Data Validate Hide Device Data Last Filed Reg Doc Graph Gg to Date Responsible Refresh Legend Chart Correction Link Lines

Labor Antepartum Recovery Postpartum Physical Assessment Daily Care I/O OB QBL Calc NIDA Quick and Modifi...

Search (Alt+Comma) 10/5/20 0900 Based On: 0700 Reset Now

View All 1m 5m 10m 15m 30m 1h 2h 4h 8h 24h

Hide All Show All

- NIDA Quick Screen
- NIDA Modified Assist Cannabi...
- NIDA Modified Assist Cocaine...
- NIDA Modified Assist Injectio...
- Substance Involvement Score

Question	Frequency	Score	Notes
NIDA Quick Screen			
In the past year, how often have you had 4 or more drinks a day?	Monthly		
In the past year, how often have you used any tobacco products?	Once or Twice		
In the past year, how often have you used prescription drugs for non-medical reasons?	Monthly		
In the past year, how often have you used any illegal drugs?	Monthly		
In your LIFETIME, which of the following substances have you ever used?	Cannabis (ma...)		Cocaine (coke...)
NIDA Modified Assist Cannabis Use			
In the past 3 months, how often have you used cannabis?			
In the past 3 months, how often have you had a strong desire or urge to use cannabis?			
In the past 3 months, how often as your use of cannabis led to health, social, legal or financial problems?			
In the past 3 months, how often have you failed to do what was normally expected of you because of your use of			
Has a friend or relative or anyone else ever expressed concern about your use of cannabis?			
Have you ever tried and failed to control, cut down, or stop using cannabis?			
NIDA Modified Assist Cocaine Use			
In the past 3 months, how often have you used cocaine?		2	2
In the past 3 months, how often have you had a strong desire or urge to use cocaine?		4	4
In the past 3 months, how often as your use of cocaine led to health, social, legal or financial problems?		4	4
In the past 3 months, how often have you failed to do what was normally expected of you because of your use of		6	6
Has a friend or relative or anyone else ever expressed concern about your use of cocaine?		3	3
Have you ever tried and failed to control, cut down, or stop using cocaine?		0	0
NIDA Modified Assist Injection Drug Use			
Have you ever used any drug by injection (NONMEDICAL USE ONLY)?		Yes, but not in ...	Yes, but not in ...
Substance Involvement Score			
NM Assist Cannabis SI Score			
NM Assist Cocaine SI Score		19	19 (calculated...)

10/05/20 0900

In your LIFETIME, which
Cannabis (marijuana, pot, g...
Select Multiple Options: (F5)
Cocaine (coke, crack, etc.)
Prescription stimulants (Rita...
Methamphetamine (speed, r...
Inhalants (nitrous oxide, gla...
Sedatives or sleeping pills (...
Hallucinogens (LSD, acid, m...
Street opioids (heroin, opiu...
Prescription opioids (fentan...
Comment (F6)

Value Information —
Cocaine (coke, crack, et...
Taken by:
Olivia Alameida at 10/
Recorded by:
Olivia Alameida at 10/

Last Filed Values (24
Cocaine (coke, crack, et...
by Olivia Alameida at 10/

First Filed Value —
Cocaine (coke, crack, et...
by Olivia Alameida at 10/

Show Audit

Appendix B: Commonly Prescribed Medications in OB and Possible False Positive Urine Toxicology Test Results⁺

Commonly prescribed medications in OB that may result in false positives					
	Amphetamine/ Methamphetamine [#]	Benzodiazepine	Barbiturate	Methadone [*]	Fentanyl ^{**}
Bupropion	X				
Diphenhydramine				X [*]	
Doxylamine				X [*]	
Fioricet/Fiorinal			X		
Labetalol	X [#]				
Loperamide					X ^{**}
Metformin	X [#]				
Promethazine	X [#]				
Quetiapine (≥ 125 mg)				X [*]	
Risperidone					X ^{**}
Sertraline (≥150 mg)		X			
Trazadone	X [#]				

+ This table is NOT specific to the ZSFG lab’s particular immunoassays and crossreactivities. If there is a difference between possible false positive results stated in the literature and the ZSFG lab-specific immunoassay crossreactivities, it is noted with a superscript. ZSFG lab-specific immunoassays are subject to change over time. General questions regarding ZSFG urine toxicology testing and/or patient-specific ZSFG test results can be addressed by contacting either the ZSFG Clinical Lab Fellow at pager 415-719-5166 (M-F business hours) or Dr. Kara Lynch at phone 628-206-5477 or email kara.lynch@ucsf.edu.

The ZSFG lab currently uses an amphetamine immunoassay that has not been shown to crossreact with the following medications: labetalol, metformin, promethazine. ZSFG lab’s current immunoassay should therefore not result in a false positive for these particular medications; however, other labs may not use this same immunoassay. In the literature, amphetamine immunoassays have a cross-reactivity of 10%. The current immunoassay used at ZSFG has a < 1% crossreactivity rate as of April, 2021.

* The ZSFG lab only uses an immunoassay that detects EDDP, the metabolite of methadone. False positives are extremely uncommon. The possible false positive results listed in this table should not happen with the ZSFG-specific immunoassay, but have been reported in the literature.

** There are no known cross reactivities to date (3/26/21) with the current fentanyl metabolite assay used by the ZSFG lab, which has been in use since November 2020 (98% confirmed positive rate). However, outside labs may use a different assay with known crossreactivities which are noted above. And, data are emerging on delayed clearance of fentanyl metabolites both in and outside of pregnancy, and how to interpret urine fentanyl tests. In one case report, a pregnant person demonstrated delayed clearance of fentanyl metabolites up to 70 days after last use. It is unclear if this case is one of many, or an outlier. If there is inconsistency between the patient’s reported history of last use and urine fentanyl results, consider the following steps: 1) discuss with the patient the test results, and reconfirm no recent use (last 3-5 days). If the patient continues to report no recent use, and determination of more specific timing of last use has clinical consequences, contact ACT and request help with interpretation of results. ACT may contact Dr. Kara Lynch to obtain fentanyl metabolite levels, which can suggest timing of last use (though results are complex to interpret, and sometimes timing remains unclear).



Appendix C: Family Safety Time Out

Patient MRN: _____

This form is completed by _____ on _____

****This is a worksheet and not part of the medical record, place in binder (ask charge) when complete****

Decision made to call family safety Time Out

Checklist completed by:

- On weekdays: SW
- On weekends: post-partum lead

Pertinent patient-care team members alerted by _____

Meeting involves:

- Social Worker: _____
- Primary OB provider: _____
- Primary Peds provider: _____
- Primary RN from H22/24/25: _____
- Charge RN from H22/24/25 or post-partum lead: _____
- Best practice (if possible), to also reach out to:
- Patient PCP and/or prenatal care provider: _____
- Outpatient Social Worker: _____
- PHN: _____
- OB/Psych team representative: _____
- Case worker/counselor from outside program (e.g. HPP): _____

Family Care Plan (POSC) Reviewed/Updated/Created (if useful, import to Care Coordination note)

Topics to address:

- Discussed strengths of patient**
<Notes>
- Discussed challenges to parenting patient is facing**
<Notes>
- Identified patient's social support**
<Notes>
- Discussed comments of care-team members not present at meeting**
<Notes>
<List of who was contacted>
- How did identities, power, privilege, and bias affect this case?**
<Notes>
- What Structural Determinants are impacting this case?**



(racism-language barriers-differential access to healthcare-stigma-poverty)

<Notes>

CPS referral needed / not needed (circle one)

Rationale for decision:

<Notes>

If referral needed, next steps:

Discuss CPS referral decision with patient

Discuss with patient plan for care of self and baby before CPS interview and create POSC to support the process if time permits

Alert Nursing Station (where patient is located) of referral & who to notify upon CPS caseworker arrival

Support that can be offered to patient

- Link to supportive programs of value to parent- Identify any family / friend to contact for support
- Discharge planning with supports outlined
- Consider PHN referral, Healthy Steps (if 6M), or linkage to relevant Community Program

Pre-escalation/De-escalation

Discuss with patient if they would like care-team members to stay with them through the referral

Offer time for self-care

Optimize timing of CPS visit by calling early in the day, or when patient stable

Address any acute physical or mental health needs of patient

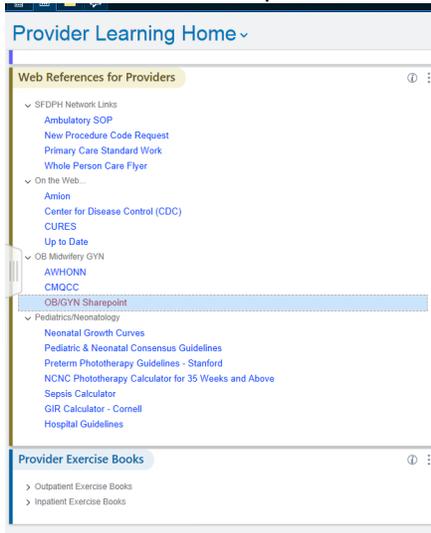
De-escalation checklist available PRN

-----Form is recorded in binder/repository-----

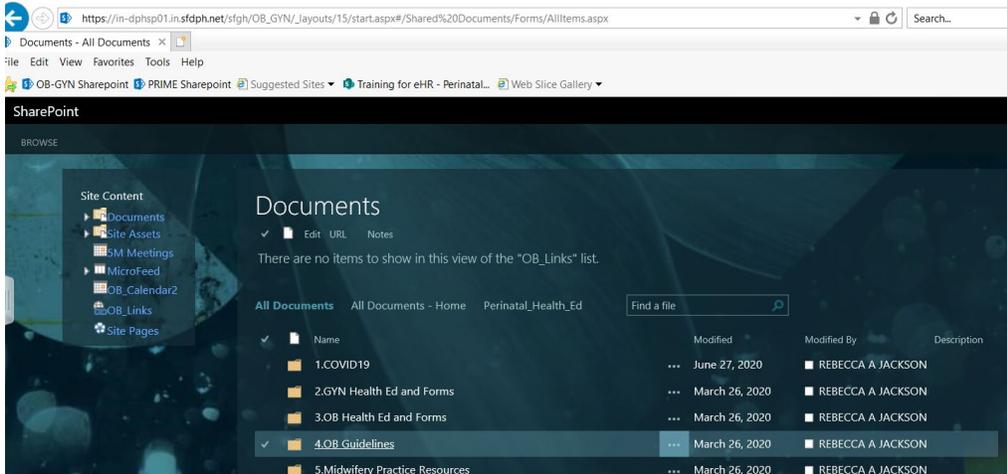
Appendix D: Plan of Safe Care

See further information on the Plan of Safe Care and how to create or find a POSC for your patient, check the OBGYN Sharepoint. To access the Sharepoint, go to your EPIC provider learning home.

Click on OBGYN Sharepoint



Click on OB Guidelines



Then click on the Plan of Safe Care documents





References

ACOG Committee Opinion, Opioid Use and Pioid Use Disorder in Preganncy, August 2017.

<https://www-sciencedirect-com.ucsf.idm.oclc.org/science/article/pii/S0376871620303124?via%3Dihub>
https://journals-lww-com.ucsf.idm.oclc.org/greenjournal/Fulltext/2020/11000/Delayed_Norfentanyl_Clearance_During_Pregnancy.7.aspx

Mother & Baby Substance Exposure Toolkit, Best Practice No. 1, accessed on December 12, 2020 at https://nas-toolkit-prod.s3.amazonaws.com/pdfs/best_practice_1_2020-09-04.pdf

Roberts, S. C., & Nuru-Jeter, A. (2012). Universal screening for alcohol and drug use and racial disparities in child protective services reporting. *The journal of behavioral health services & research*, 39(1), 3–16. <https://doi.org/10.1007/s11414-011-9247-x>