

# Obstetric Clinician Perspectives on the Utility of Toxicology Testing During Pregnancy

Leah N. Schwartz\*, Ellis J. Yeo, Molly R. Siegel, Davida M. Schiff, Sarah N. Bernstein

\*Presenting author: [lnschwartz@mgh.harvard.edu](mailto:lnschwartz@mgh.harvard.edu)

Obstetric clinicians perceived toxicology testing during pregnancy to have limited clinical utility for birthing people and expressed concern regarding potential punitive consequences for families.



HARVARD  
MEDICAL SCHOOL



MASSACHUSETTS  
GENERAL HOSPITAL  
**OBSTETRICS &  
GYNECOLOGY**

## Introduction

- Evidence-based guidelines for toxicology testing during pregnancy are lacking and little is known about clinician perspectives on the utility of such testing
- This study aimed to elicit obstetric clinicians' views on the utility of toxicology testing during pregnancy

## Methods

- Semi-structured qualitative interviews were conducted with 25 clinicians (OB/GYN attendings, residents, and fellows, and certified nurse midwives) who had ordered toxicology testing within the past year
- Interviews explored clinical decision-making, testing utility, and consent and communication practices
- Interview transcripts were double-coded in Dedoose and analyzed using a modified grounded theory approach

## Results

- Toxicology testing was most frequently used to establish a record of negative test results to support patients investigated by child protective services, guide clinical management of suspected substance-exposed newborns, and identify patients who might benefit from substance use treatment
- Test results rarely impacted clinical management of birthing people, especially when robust verbal screening for substance use was completed
- Clinicians raised concerns about the relative risks of testing, including the punitive consequences of positive test results, the possibility of false positives, and the perpetuation of inequities due to biased testing practices

Table 2. Obstetric clinicians' perspectives on the utility of toxicology testing during pregnancy

Themes	Subthemes	Illustrative Quotations
Perceived Utility	Clinical Management of Newborn	"I would imagine the pediatricians would want to know if there was like recent enough exposure to be affecting the baby and so you know, if she has negative toxicology testing that might change what the pediatricians are doing in terms of testing the baby or monitoring the baby."
	Supportive Documentation	"It's an informal education that we get over time that like, a certain number of negative tox tests will sort of exonerate someone from DCF involvement and put them in a category of people who may be investigated, but ultimately soon after be dismissed."
	Substance Use Treatment	"I don't want to miss positive tests that could really lead to substantial and targeted interventions...There are ways that we can intervene and support these women if we know about positive tests."
	Redundancy with Verbal Screening	"And especially if patients disclose--like if they're telling you that they're using a substance and you talk to them and counsel them about it, why would you even need to get a urine test at that point if they're being forthright with you?"
Perceived Lack of Utility	Clinical Management of Birthing Person	"Why am I ordering a test that doesn't change my clinical management? There's no other time in my practice where I order a test that doesn't have any utility for my care as a gynecologist and obstetrician...I probably shouldn't be the one ordering a tox screen if it's not going to affect my practice, maybe someone else can be in charge of doing that if there's a need for it."

## Conclusion

- Although obstetric clinicians described several uses for toxicology testing during pregnancy, testing infrequently impacted clinical care of the birthing person
- Decoupling clinical decision-making and punitive reporting practices is necessary to ensure appropriate use of toxicology testing and equitable care for families

Table 1. Participant Characteristics

	N
Provider Specialty	
Obstetrician/gynecologist	19
Nurse midwife	6
Years in Practice	
<10	11
10-20	8
>20	6
Practice Setting	
Academic medical center	16
Community practice	9

## References

- Ecker, J., Abuhamad, A., Hill, W., Bailit, J., Bateman, B.T., Bergella, V., Blake-Lamb, T., Guille, C., Landau, R., Minkoff, H., Prabhu, M., Rosenthal, E., Terplan, M., Wright, T.E., & Yonkers, K.A. (2019). Substance use disorders in pregnancy: Clinical, ethical, and research imperatives of the opioid epidemic: a report of a joint workshop of the Society for Maternal-Fetal Medicine, American College of Obstetricians and Gynecologists, and American Society of Addiction Medicine. *American Journal of Obstetrics and Gynecology*, 221(1), B5-B28.
- Kurtz, T., & Smid, M.C. (2022). Challenges in Perinatal Drug Testing. *Obstetrics & Gynecology*, 140(2), 163-166.
- Perlman, N.C., Cantonwine, D.E., & Smith, N.A. (2022). Racial differences in indications for obstetrical toxicology testing and relationship of indications to test results. *American Journal of Obstetrics & Gynecology MFM*, 4(1), 100453.
- Terplan, M., & Minkoff, H. (2017). Neonatal Abstinence Syndrome and Ethical Approaches to the Identification of Pregnant Women Who Use Drugs. *Obstetrics & Gynecology*, 129(1), 164-167.