

Washington University School of Medicine Takes Action to Eliminate Disparity in Maternal Drug Screening

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During perinatal care, a strong therapeutic relationship between patient and provider is critical in creating a sense of trust and safety for both mother and baby. This relationship should occur regardless of race, ethnicity, background, socioeconomic status, or disability. Within this space, care providers are also responsible for monitoring the development and safety of a fetus, which can include drug screening for substances that can negatively affect fetal development.

Urine drug screening is done with the best of intentions, with the goal of enabling follow-up, support and treatment for those with substance use issues. However, despite similar rates of maternal substance use, research shows Black peripartum mothers are more likely to undergo urine drug screening and be reported to Child Protective Services (CPS) than white mothers. Furthermore, while cannabis use, like tobacco and other drugs, is strongly discouraged during pregnancy, recent literature demonstrates no association between prenatal isolated cannabis use (iCU) and other substance misuse. Thus, not only is the patient-provider relationship threatened, creating barriers to care, this can compound generational trauma already experienced in healthcare, for no known benefit.

Recognizing the immense impact unnecessary UDS can have, Washington University School of Medicine in St. Louis, Missouri physicians, laboratorians and informatics collaborated to eliminate the racial disparity associated with urine drug screening among peripartum mothers. Through the power of laboratory insights, this team identified a history of iCU as the driver of disparities in urine drug screening (UDS), while also noting that patients undergoing UDS solely due to iCU were highly unlikely to test positive for other, more concerning substances.

Through policy change, IT infrastructure updates and a system-wide culture change, iCU was removed as an indicator for urine drug screening if a pregnant mother self-reports isolated cannabis use.

As a result of the intervention, Washington University School of Medicine has safely decreased the number of deliveries with urine drug screening performed by 75%. Crucially, the racial disparity in UDS practices has been eliminated, with 5% of deliveries for Black mothers (previously 22%) and 4% for white mothers (previously 10%) now undergoing urine drug screening based on iCU. Moreover,



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detection of illicit drug use in perinatal mothers was unaffected and neonatal outcomes remained the same.

Furthermore, the intervention saved time and resources at the hospital and state levels, while helping to preserve the patient-provider relationship. The CPS reporting rate decreased by 66% for Black mothers and 50% for white mothers.

This initiative underscores the value and opportunities associated with cross-disciplinary collaborations. “We couldn’t have done this without laboratory medicine,” said Dr. Jeannie Kelly, Medical Director of Labor and Delivery at Washington University School of Medicine. “Protocols are only effective when they are implemented and followed – their ability to ensure the protocol is applied in the EMR made that possible.”

“The encouraging results of the initiative have inspired the pathology informatics team to explore other areas of patient care where disparities might be present,” shares Dr. Vahid Azimi, Associate Medical Director of Laboratory Informatics at Washington University School of Medicine.

“This serves as a really interesting use case for how laboratory medicine impacts patients’ lives and patient outcomes, and how we can have a greater impact in improving equity,” he said.

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