

Background

- National prevalence of pregnant women with substance use disorder (SUD) increased dramatically in the past decade.
- Women with SUD may not be identified during pregnancy for various reasons, including limited to no prenatal care (1).
- Deliveries and birth hospitalizations present an opportunity to identify and treat pregnant women with SUD and newborns at risk for neonatal abstinence syndrome.
- The purpose of this study was to assess the variation in toxicology screening policies and practices for mothers and newborns in NYS birthing hospitals.

Methods

- In January 2017, the NYSDOH's NYS Perinatal Quality Collaborative (PQC) administered a survey to all 124 NYS birthing hospitals (17 Regional Perinatal Centers (RPCs), 36 Level III, 24 Level II, 47 Level I hospitals).
- Hospitals were queried via Survey Monkey regarding formality of screening policies, criteria for and types of screening, and referral practices.
- One survey was completed per hospital by a team of obstetrical and/or neonatal providers.
- Results were analyzed using SAS 9.4 and Excel.

Results

- Response rate was 100% (124/124).
- 61% of NYS birthing hospitals had a written policy for toxicology screening of mothers and 60% for newborns.
 - 49% have a written policy for both, 12% for mothers only, 11% for newborns only, and 27% had none.
- During the birth hospitalization: 85% of birthing hospitals screened pregnant women based on specific risk criteria; 15% screened all pregnant women; and <1% did not screen any women for substance use (Table 1).
 - Geographical differences exist; screening based on specific risk criteria is most common throughout NYS, except in Western NY where universal screening predominates (54%).

Table 1. Toxicology Screening Practices for Pregnant Women in NYS during the Birth Hospitalization by Region

Region (# of Birthing Hospitals)	N (%) Screening Some Pregnant Women Based on Specific Risk Criteria	N (%) Screening All Pregnant Women for Substance Use	N (%) Not Screening Any Pregnant Women for Substance Use
Northeastern NY (n=13)	13 (100%)	0 (0%)	0 (0%)
Finger Lakes (n=9)	9 (100%)	0 (0%)	0 (0%)
New York City (n=39)	36 (92%)	3 (8%)	0 (0%)
Central NY (n=19)	17 (89%)	2 (11%)	0 (0%)
Mid-Hudson (n=18)	15 (83%)	2 (11%)	1 (6%)
Long Island (n=13)	9 (69%)	4 (31%)	0 (0%)
Western NY (n=13)	6 (46%)	7 (54%)	0 (0%)
Statewide (n=124)	105 (85%)	18 (15%)	1 (<1%)

- Top five screening criteria for pregnant women include: history of drug use (73%); observed signs and symptoms during hospitalization (61%); late or no prenatal care (55%); placental abruption (42%); and self-report of current drug use (37%).
- Top five screening criteria for newborns include: positive maternal screen during pregnancy/postpartum (96%); maternal self-report of current drug use (96%); newborn signs of withdrawal (92%); maternal signs/symptoms of drug use (90%); and maternal history of drug use (89%).
- When a confirmed positive toxicology screen is obtained for the mother, 91% of hospitals referred to social work consultation for an assessment and 83% refer to Child Protective Services (CPS) (Table 2).
 - A higher percentage of RPCs refer for a maternal confirmed positive compared to lower level hospitals.

Table 2. Interventions Offered When a Confirmed Positive Toxicology Screen Is Obtained for the Mother, by Perinatal Care Level

Level (# of Birthing Hospitals)	Social Work Consultation for Assessment	Referral to a Substance Rehabilitation Program	Referral for Outside Counseling Services	Referral for Visiting Nurse Services	Referral to Child Protective Services	Other Interventions
RPC (n=17)	17 (100%)	14 (82%)	12 (71%)	7 (41%)	14 (82%)	1 (6%)
Level III (n=36)	36 (100%)	24 (67%)	16 (44%)	16 (44%)	29 (81%)	0 (0%)
Level II (n=24)	24 (100%)	8 (33%)	8 (33%)	7 (29%)	21 (88%)	1 (4%)
Level I (n=17)	36 (77%)	14 (30%)	13 (28%)	22 (47%)	39 (83%)	7 (15%)
Statewide	113 (91%)	60 (48%)	49 (40%)	52 (42%)	103 (83%)	9 (7%)

Results, continued

- Top five scenarios for filing a CPS report:
 - Positive maternal and newborn toxicology screen at delivery (100%);
 - Positive newborn toxicology screen, but mother's screen was negative (89%);
 - Maternal or infant toxicology screen positive only for THC (marijuana) (88%);
 - Positive maternal toxicology screen at delivery, not considering newborn's result (76%); and
 - Positive maternal toxicology screen at delivery, negative newborn screen (74%).

Discussion

- Variations exist in toxicology screening policies and practices at NYS birthing hospitals, including among perinatal levels and geographic regions.
- 60% of birthing hospitals reported having written toxicology screening policies for pregnant women and/or newborns, fewer than half (49%) had both.
- Western NY (54%) and Long Island (31%) had the highest percentages of birthing hospitals conducting universal toxicology screening of pregnant women.
- The findings of this survey present an opportunity for the NYSPQC to address variation in toxicology screening, and referral policies and practices during deliveries and birth hospitalizations in NYS.

Reference

- Roberts S, Pies C. Complex Calculations: How Drug Use During Pregnancy Becomes a Barrier to Prenatal Care. *Matern Child Health J.* 2011;15(3):333-341.

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